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THE DOLOMITES

THE DREI ZINNEN

THE DOLOMITES

BY

S. H. HAMER

WITH SIXTEEN ILLUSTRATIONS IN COLOUR BY
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AUTHOR'S NOTE

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S. H. H.

May 1910.

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THE DOLOMITES

CHAPTER I

AREA OF THE DOLOMITE REGION—MEANING OF THE TERM—DIVISION INTO GROUPS

IT is still not uncommon to meet with comparatively well-educated people who will unblushingly ask, "And where precisely *are* the Dolomites?" It is indeed not impossible that there still exists that delightful person who declared that she was never quite sure whether "The Dolomites" was the name of a range of mountains or of a religious sect; or that other entertaining person who remarked, "The Dolomites? Ah, yes, I met them last year down at Margate."

It may be as well, therefore, to state definitely at the outset that by the term Dolomites we do not refer to any sect at

all, but use it merely as a geographical term.

One cannot even accurately describe the Dolomites as a "range" of mountains, for they are rather a series of groups or ranges, more or less connected with each other, mainly comprised in the southern part of the Austrian province of Tyrol, though stretching in places over the border into Italy.

Strictly speaking, the term "Dolomite" is geological, and should be applied only to a limited number of mountain groups, of which the Langkofel, Rosengarten and Schlern are the chief; it should not include such mountains as Monte Cristallo, Monte Pelmo or Monte Antelao; these are, however, generally known as the Ampezzo Dolomites, and as there are likewise many other groups habitually spoken of as "Dolomites," such as the Fassa Dolomites, the Sexten Dolomites, and so on, it would be pedantic to attempt nowadays to limit the application of the term to those peaks only which, geologically speaking, are of strictly dolomite formation.

AREA OF THE REGION

The Dolomite region, then, forms roughly a sort of rectangle. The northern side of this rectangle is the Pusterthal; on the east the Sextenthal and the valley of the Piave down to Belluno, make a convenient border-line; on the south, one might draw a line across from Feltre to Neumarkt (some way north of Trient); while the river Eisak bounds the district on the west.

It is true that there are Dolomites (in the geological sense) in other parts of the Alps than South Tyrol; there is, for example, the Brenta Group, which lies to the north-west of Trient; dolomite rocks occur, too, in the Dauphiné Alps, and in the Err Group, north of Splügen (the Piz d'Aela, the Tinzenhorn, and the Piz Michel). The Dolomites of Tyrol, however, have appropriated the term to themselves; they cover a much larger area than any of the other dolomite rock-formations found elsewhere, and one may fairly claim that by now the name is generally limited to the district indicated.

The name is derived from Déodat de Gratet,

Marquis of Dolomieu, who took his title from a village of Grenoble in the Dauphiné Alps. He first visited these mountains in 1789, and it is somewhat singular that, while he examined and described the Tyrolese mountains of this formation, he does not seem to have devoted any attention to the peaks near Grenoble, which are composed of similar rock.

Dolomite is a peculiar form of limestone, consisting of carbonate of lime and carbonate of magnesia, and is generally described as "magnesian limestone."

The district is still much less visited by English tourists than it deserves, and, indeed, it is only in recent years that it has become at all popular among travellers of any nationality. So recently as 1873, Miss Amelia Edwards was able to describe her journeyings in this region as a visit to *Untrodden Peaks and Unfrequented Valleys;* she gave ample reason for the comparative isolation which the region then enjoyed: "the absence of roads; the impossibility of traversing the heart of the

country except on foot or on mule-back; the tedious postal arrangements; the want of telegraphic communication, and the primitive quality of the accommodation provided for travellers."

All this, however, is now changed, and there are those who fear that the Dolomites may speedily share the fate of Switzerland, and be over-run by the "tripper" and the "peak-scalper." Much has been done and is still being done to facilitate transit for the general travelling public; good roads have been made, the railway now runs to points from which the district may readily be reached; telegraphic and even telephonic communication is almost universal, and comfortable accommodation may be met with everywhere.

Happily the district is not yet so overcrowded in the holiday season but that one may still find "unfrequented valleys" where one meets with homely hospitality and courtesy, combined with moderate charges and scrupulous cleanliness. A dress suit is not yet an essential article of one's impedimenta,

and a knowledge of German and Italian is undoubtedly useful at times.

Several magnificent roads, known as the "*Dolomiten-strassen,*" have been recently constructed, and, for the most part, the visitors to this region keep to the ordinary routes which are embraced by these roads; but the pedestrian who can traverse the passes, and feel himself independent of the K.K. posts and diligences, may comfortably visit a great deal more of the country, and see far more of its beauties from the top of a "*forcella*" than from the front seat of an automobile.

One of the most striking features about the Dolomite district is the fact that one may walk for miles along a splendid road without meeting a single fellow-traveller; the roads are there, all ready for use, and kept in excellent order, but no one seems to use them. It is curious how reluctant most travellers seem to be to stray from the beaten track.

To the geologist and mineralogist the Dolomites have long been known; Predazzo is a

sort of Mecca of the student of geology. Mountaineers have of recent years paid more attention to the peaks of the district, with the result that but few of them can now be said to be untrodden. It may be added that the district is one of exceptional interest to the botanist, while as for the artist, it is at once his delight and his despair. It teems with "subjects," but the difficulties which beset the conscientious painter are tremendous; much of the scenery is so unusual and unexpected that one feels disposed to regard it as wild exaggeration when faithfully reproduced on paper or canvas, while the rapid changes effected by the play of light and shade on the diversely-coloured rocks make it almost impossible for even the quickest worker to get more than an impression of the scene set before him.

Writing in 1873 in the work above mentioned (surely one of the most delightful books of travel ever issued), Miss Edwards says of this region a good deal that holds true in the main to-day. "To say that the arts of ex-

tortion are here unknown," she writes, " that the patriarchal notion of hospitality still survives, miraculously, in the minds of the innkeepers—that it is as natural to the natives of these hills and valleys to be kind, and helpful, and disinterested as it is natural to the Swiss to be rapacious—that here one escapes from hackneyed sights, from overcrowded hotels, from the dreary routine of *tables d'hôte,* from the flood of tourists—is, after all, but to say that life in the South-Eastern Tyrol is yet free from all the discomforts which have of late years made Switzerland unendurable, and that for those who love sketching and botany, mountain-climbing and mountain air, and who desire when they travel to leave London and Paris behind them, the Dolomites offer a 'playground' far more attractive than the Alps."

There are exceptions to this statement nowadays, of course, In Cortina, notably, one finds a good many of the conditions which exist in Switzerland—large hotels, *tables d'hôte,* crowds of tourists, afternoon tea-rooms, etc.,

but in most of the other villages in the Dolomite region a simple mode of life prevails; the host or hostess sits down at dinner with the guest, to see that he is comfortable; often it is the landlady herself who waits at table. One is treated as a friend to be welcomed rather than as a victim from whom profit may be made.

As the mountains form the principal feature of the country, and to see them is the chief object of visiting it, it is convenient to divide the country according to the principal groups of mountains. They may be separated roughly into six main groups.

The best-known group is that of the *Cortina Dolomites;* this includes Monte Cristallo, Piz Popena, Croda Rossa (otherwise known as Hohe Gaisl), Monte Civetta, Monte Pelmo, Croda da Lago, Tofana, Nuvolau, Antelao, Sorapiss and Marmarole. These are the principal peaks of the Cortina Dolomites, and the most familiar to English tourists, as Cortina is now much frequented by them; they are, however, by no means the most characteristic

of the Dolomites nor, in the opinion of the present writer, are they the most beautiful.

The next group is that known as the *Sexten Dolomites*, as most of them lie near the head of the Sextenthal, which is situated to the north-east of the Cortina district.

By far the most celebrated peaks of this group are the Drei Zinnen, which lie at the head of the Rienzthal; the other less-known peaks of the region include the Dreischusterspitze, the Elferkofel and the Zwölferkofel.

The third group is known as the *Pala group*—the "Peaks of Primiero" familiarised by Leslie Stephen—perhaps the most characteristic mountains of the whole of the Dolomite region. They are situated in the neighbourhood of Primiero, in the extreme south of our rectangle, and include the Cimon della Pala ("the Matterhorn of the Dolomites"), the Cima di Vezzana, the Cima di Ball, the Cima di Fradusta, the Cima della Madonna, the Sass Maor, the Pala di San Martino, the Cima di Canali and the Rosetta, with the Vette

di Feltre, of which Monte Pavione is the highest point.

It is in this group, perhaps, that we meet with the Dolomite mountains in their most extravagant form; certainly we come across the most vivid coloration in this district, and for wild grandeur and magnificent scenery the Val di Canali is absolutely unequalled.

The next group, the fourth, is that of the *Marmolata*, which lies to the north of the Pala group, between the Fassathal and the Val Livinalongo. It is a comparatively small group, but it can boast the possession of the Marmolata itself, which is the highest peak of the Dolomites, but is by no means characteristic of the district, as it is a snow-peak relatively easy of access. The Vernel, which is almost a spur of Marmolata, is far more difficult, and approaches much more nearly to the typical Dolomite form. Other peaks of the group are the Sasso Vernale and the Punta di Cornate.

Still further to the north, extending up to the Gröden valley, lies the fifth group of Dolo-

mites, the *Gröden group*. This includes the Sella group, with the Boëspitze, Pisciadu, the Pordoispitze, and the Mesules; a little to the west lies the famous Langkofel group, in which is included the Fünffingerspitze (long regarded as the most difficult climb in the Dolomites), the Langkofel, the Plattkofel, the Grohmannspitze and the Rodella; while to the north of the Gröden valley rises the Geisler group, with the Sass Rigais, the Fermeda, the Seceda, the Coll dalla Pieres, and the Monte de Soura.

The Gröden valley is a favourite resort for tourists, and St Ulrich, the principal village, almost rivals Cortina in popularity; the Langkofel peaks are perhaps as well known as any other of the mountains in the Dolomite region, and certainly they give one a good idea of a typical Dolomite.

The last group—that of the *Rosengarten*—lies directly west of the Fassathal, and forms a well-known feature of the view from Botzen. It contains the celebrated Vajolet-thürme, the Delago-thurm, the Rosengartenspitze, the

Tschaminspitze, the Kesselkogel, the Antermojakogel, and the Rothwand; while to the north-west lies the Schlern. It is from Botzen that one of the celebrated Dolomitenstrassen starts, and from here a good many travellers begin their journey into the Dolomite country.

It is the endeavour of the present writer to give some account of the impressions received on a visit to the district above indicated. Perhaps some apology should be made for the personal note which obtrudes itself from time to time, but it is hoped that the actual experiences of two ordinary, average individuals may prove of some interest to the general reader.

CHAPTER II

THE APPROACH TO THE DOLOMITES—TOBLACH AND THE AMPEZZO ROAD

A NARROW valley flanked on either side by huge mountains which rise up, sternly forbidding, like the outposts of an army, barring the entrance to some hallowed spot. This is, surely, the fitting place at which one should make one's acquaintance with the Dolomites.

From Botzen the view of the Rosengarten, wonderful as it is, seems altogether unreal—the peaks are so far away that one can scarcely believe in them, one has the impression that a closer acquaintance may dispel some of the mystery; while at Primiero, the contrast between the luxuriant Italian vegetation and the sharp, barren rocks is too abrupt—the surprise is so great that one can hardly appreciate the wonder of the scene.

TOBLACH

But Toblach, situated at the head of the Höhlensteiner Thal, is the proper gateway of the Dolomites. Here we see the typical Dolomite Mountains, the forms and colours with which we are to become familiar, but the eccentricities are not too pronounced as yet, there is not too much for the mind to take in.

The village of Toblach itself lies modestly retired from the intrusive railway which runs along the Pusterthal, as if it wished to have no part or lot with the busy crowd of tourists and sightseers who come from all quarters of the globe. But around the station is another village of hotels — busy with motor-cars, diligences and carriages—for Toblach is the starting-point of one of the great roads which traverse the Dolomite country.

The first impression that we get of these mountains is that of their size; they strike us as being on a grander scale than we had supposed. Perhaps, because we had heard so much about the colour and weird forms of the peaks, we had overlooked their magnitude, but whatever the reason, there is no doubt

that the first sight of these huge monsters, rising sheer from the valley, is wonderfully impressive.

Toblach stands at an altitude of nearly 4000 feet above sea-level, at the point where the Höhlensteiner valley branches off from the Pusterthal. On the right is the Sarlkofel (7749 feet), and on the left the Neunerkofel (8418 feet), which stand like sentinels guarding the pass on either side, while one gets a glimpse of Monte Pian, apparently closing up the end of the valley.

We reached Toblach in the afternoon and, after hastily depositing our baggage in a hotel, made our way up a small hill in the immediate vicinity, to get some idea of the country that lay before us.

We had anticipated that it would be only at sunset or sunrise (principally the former) that we should see the extraordinary effects for which the Dolomites are famed, and that seen in the bright noonday sun they would appear to be much as other mountains are. But no light can ever make your Dolomite

look like any other mountain; in the clearest sunlight, in drifting cloud, in gathering storm, or in the soft light of evening, it always retains its special characteristics, and could never be mistaken for one of the Swiss Alps, whilst at sunset and sunrise these mountains take on beauties that cannot be approached by any others.

We returned to our hotel full of desire to see more, and on the following day set out early for Landro in the Höhlensteinerthal. The post-wagon being full we were obliged to indulge in the luxury of seats in the automobile. We had been previously full of indignation at the notion of the country being desecrated by the motor-car, and had deplored the all-too-rapid invasion of modern conveniences, but were, it must be confessed, rather glad to avail ourselves of these evidences of vandalism on occasion.

The Ampezzo road from Toblach (called the *Strada d'Allemagna* by the Italians) leads past the small Toblach Lake, and the valley soon narrows until it becomes almost a gorge.

The mountains close in on either side, and one is able to appreciate for the first time some of the extraordinary colours of which so much has been heard.

The delicacy of the colouring is exquisite; the tops of some of the peaks are of a soft, silvery grey, resembling the bloom one sees on fruit, while here and there on the ledges below appear splashes of delicate yellow or fawn colour. In the clear atmosphere it seems as if every niche and crevice were discernible, and the whole effect is that of exquisitely-designed filigree work, executed on a stupendous scale.

It must be confessed, however, that, generally speaking, the first impression of the Dolomites is that they are frankly impossible; no such mountains were ever seen before and surely will never be seen again; they seem to defy all rules, to conform in no way to any method, they assume all sorts of weird and grotesque shapes, and their colouring is almost inconceivable.

At Landro—or Höhlenstein—the Schwarze

MONTE CRISTALLO AND THE DÜRREN SEE

Rienz Valley branches off to the left, and here we catch sight of the celebrated Drei Zinnen, to which we shall return later. We secured rooms at the inn and then set forth with our lunch in our pockets to pass judgment upon one of the most celebrated views of the district—Monte Cristallo from the Dürren See.

The green waters of the lake in the foreground, with the huge mass of Monte Cristallo, Piz Popena, and Monte Cristallino at the back, form a striking picture. Monte Cristallo (10,495 feet) is one of the few Dolomite peaks that can boast of a glacier, and this is only a little one—most of the mountains being too abrupt and pointed in their formation to allow even of snow on their slopes.

Seen from the Dürren See Cristallo displays this glacier to full advantage, and its ledges sprinkled with snow give it an aspect much more like that of the Swiss Alps than do the majority of the Dolomite mountains. From the opposite side, however, at Tre Croci or Cortina, it looks like a typical Dolomite; the peaks are jagged and broken. no snow is to be

seen, and the appearance of the mountain is so different that it is difficult to realise that one is looking at the same peak as the one seen over the Dürren See. This characteristic, by-the-bye, is noticeable in many of the Dolomite mountains; seen from different points of view they assume entirely different aspects—the whole character of the mountain seems to change.

The Piz Popena (10,310 feet), which is on the left of Monte Cristallo as one looks from the Dürren See, presents a very usual type of formation; it is something like a series of columns or pillars, surmounted by a rounded top—a formation one meets with later on, on a larger scale, in the Sella group and the Boë-spitze.

We spent a very profitable hour or so here, the artist in making a sketch and the author in devising similes suitable for the strangely-shaped peaks, when our peaceful occupation was interrupted by a soldier, who informed us that sketching and photographing were strictly forbidden in these parts, We vainly endeav-

oured to appeal to his feelings, pointing out that we were not in any way desirous of penetrating state secrets, and assuring him that Art (with a capital A) was cosmopolitan, but he was firm, and insisted that his orders allowed of no exceptions. Accordingly, as the sketch was practically finished and two excellent photographs had already been taken before he appeared upon the scene, we submitted and made our way back to our inn.

Soon after passing the Dürren See the road reaches Schluderbach, at the mouth of the Val Popena. It is a village much frequented in summer by tourists and beautifully situated. To the right is the magnificent mass of Croda Rossa, or Hohe Gaisl (10,330 feet), which introduces us for the first time to another colour in the rocks—a rich red.

Passing Ospitale, a small village at the base of the Crepa di Zuoghi, the road then enters the Ampezzo valley proper and descends between Tofana on the right and Pomagognon on the left to Cortina.

From Schluderbach one may diverge to the

left and traverse the Val Popena to Lake Misurina, another celebrated and much-frequented spot in this district, where several large hotels have been erected on the shores of the lake for the accommodation of visitors.

A much more interesting way of approaching the Misurina See, however, is to branch off at Landro up the Rienz valley and make one's way up to the Drei Zinnen Hütte and thence down to the lake. This route is, of course, only practicable for pedestrians, but it is only by traversing these lonely valleys and by diverging from the beaten track that the full beauties of the country can be appreciated.

We adopted this route, and started early on a brilliantly fine morning up the long, hot Rienz valley. The view of the celebrated Drei Zinnen all the way up was most imposing.

The Drei Zinnen, or Three Pinnacles, are huge masses of rock, mainly yellow in tint, but splashed with black in a very curious way; they are undoubtedly admirably adapted for dealing with clouds so as to use them in the most effective manner. The three masses

of rock are separated from each other by very narrow defiles, and the clouds seem to seize every possible opportunity to steal through the openings and wrap themselves round the peaks, adding immensely to the effect of mystery and majesty of the rocks themselves.

Leslie Stephen has remarked on the strange transformation that the cliffs undergo in the varying light: "They would not remain steady," he says, "for five minutes together. What looked like a chasm suddenly changed into a ridge; plain surfaces of rock suddenly shaped themselves into towering pinnacles, and then the pinnacles melted away and left a ravine or a cavern. The singular shifting phantasmagoria reminded me of the mystical castle in the Vale of St John, and it required a heartless scepticism to believe that the only witchcraft at work was that of the sun, as it threw varying lights and shadows over the intricate labyrinths of the rocks."

Nowhere is this peculiarity more strikingly exhibited than in the Drei Zinnen. All the way

up the Rienzthal they dominated the scene, like an actor-manager on his own stage, but every moment they presented a different aspect—now almost hidden in white, filmy cloud, now standing out clear and bright, sharp in outline against a brilliant sky, and again looming dark and threatening in front of a background of heavy storm-clouds. These rapid changes, while they are the wonder and admiration of the ordinary observer, are the despair of the artist, for he realises that unless he is possessed of the speed of a cinematograph, or the memory of a photographic plate, the task of reproducing a faithful picture of any given scene is rendered exceptionally difficult.

On the way up towards the hut we saw numbers of bright yellow poppies, growing in what seemed to be most unpromising soil, and also plenty of gentian. As the hut was neared the weather grew more and more threatening, and just before it was reached heavy rain-drops began to fall. We were able, however, to gain the shelter of the hut in

time, and to witness, from a comfortable seat, the magnificent spectacle of a thunderstorm raging in the high mountains.

For a while the whole landscape was blotted out by the driving, heavy rain, and subsequent arrivals, less fortunate than ourselves, came in soaked to the skin. In the comparatively narrow amphitheatre opposite the cliffs of the Drei Zinnen the thunder reverberated with tremendous effect, and the sound was thrown back from cliff to cliff until it seemed to be one continuous roar.

The storm soon passed, however, and we were able to go out and enjoy the scene. The hut is situated on a saddle (7897 feet above sea-level) commanding a wonderful panoramic view. Directly opposite rise the gaunt cliffs of the Drei Zinnen, huge, bare and forbidding; away down the valley to the west lies Croda Rossa, now glistening in the sunlight, and displaying the charms of its wonderfully rich colouring; a little to the left is the Monte Cristallo group, while to the east, just below the saddle, are two bright blue lakes, the

Boden Seen, with the sunny Altenstein valley beyond.

Mindful of our experience at Landro with the sentry, and seeing that even up in this desolate region the military authorities were apparently nervous of spies (for there were notices just outside the hut forbidding sketching and photography), we were careful to confine our operations to our bedrooms, whence we obtained some promising material.

All the afternoon the scene constantly shifted and revealed new and unexpected beauties, but the climax was reached at sunset. The clouds, at the proper moment, obligingly began to clear away, and it seemed as if Nature had determined to provide a view suited to every mood.

It was impossible to look down on the mighty mass of Croda Rossa, with the sun shining full upon it and making it afire with vivid brilliance, and not feel that all the hopes of the most incurable optimist were more than justified. It was on this scene that the artist

dwelt, revelling in subtle changes and indulging to the full his taste for colour.

On the other hand the pessimist could find a scene exactly to his liking to the east, where one could not but feel the gloomiest forebodings; the valley dark and forbidding, the snow on the peaks above of an almost ghastly blue, and presently a thin veil of cold rain swept up from below and shut out the brighter landscape beyond. Fresh colour-schemes and new methods of treating each subject were evolved every moment with lavish munificence, until at last, when it seemed the eye of the spectator could stand no more, as if at a given signal a curtain of grey cloud rose slowly from the valleys below and blotted out the peaks, leaving only a faint suggestion here and there of what, a few moments before, had been so overwhelming.

In the morning the Drei Zinnen were again standing clear and sharp against a cloudless sky, and they seemed in the bright sunlight to be robbed of all their terrors. The middle peak is both the highest (9850 feet) and the

easiest of ascent, the Kleine Zinne (9020 feet) is the most difficult, but they are all suitable only for the expert climber. We watched one traveller (it is to be hoped that he came under this category) starting up the Kleine Zinne with his guide, but before very long he was out of sight—hidden in a "chimney."

An easy walk over the Forcella Lavaredo and the Forcella Lungieres took us down to the Misurina See, from which is obtained one of the best-known views of the Drei Zinnen. Here again we realised what wonderfully different aspects the Dolomites wear when viewed from different standpoints. As seen from the Misurina See, the Drei Zinnen (of which one sees here only two peaks) lose all the threatening majesty they assume to those who view them from the Rienzthal, and look like nothing so much as a glorified blanc-mange, neatly turned out and powdered with castor-sugar. The view to the west, comprising the huge masses of Sorapiss (10,520 feet), Marmarole (9620 feet), and Antelao (10,710

LOOKING TOWARDS MISURINA FROM THE DREI ZINNEN

feet), is disfigured by a large hotel from which it is impossible to escape. The lake itself is small in size, but it is apparently considered to be one of the most beautiful spots in the region, if one may judge by the number of hotels erected on its shores; the scenery seemed to us, however, to be pretty rather than beautiful, and we felt the loss of something of the awe-inspiring grandeur of the typical Dolomites which is found in other less-frequented places.

After a brief rest at one of these despised hotels we made our way up the road to Tre Croci, through fine pine woods with splendid peeps of Sorapiss through the trees. Tre Croci is so called from the three wooden crosses on the plateau where the hotel stands. A magnificent view of the Ampezzo valley bursts suddenly upon us when the plateau is reached; right across the valley towers the Tofana, with its three peaks (10,565, 10,635 and 10,600 feet). Towards the south-west lies the quaintly irregular ridge of Croda da Lago, and the mass of the Nuvolau; to the

right Monte Cristallo rises, abrupt and jagged, while in the distance are seen the snow slopes of Marmolata, the highest of all the Dolomite peaks.

By careful management we were enabled to take some photographs of Sorapiss on our way up to Tre Croci; the grey rock and patches of snow, with the brilliant sunlit clouds drifting across them, seen through the dark pines, afforded "subjects" too good to be neglected, so while one kept watch for the interfering soldiery the other took a picture.

From Tre Croci a good carriage-road runs down into Cortina, with magnificent views of Tofana, Nuvolau, Croda da Lago and Cinque Torri all the way.

We had determined, however, to stay at Tre Croci, and go on from there to the Auronzo valley. Accordingly we walked only a short distance down the Cortina road and returned to our inn.

CHAPTER III

THE AURONZO VALLEY—PIEVE DI CADORE

SOLITUDE in a crowd is generally supposed to be solitude of the worst kind, but it would be difficult to imagine any sense of greater isolation than that which is felt in some of the valleys of the Dolomites which lie off the beaten track of the average tourist. You may walk for miles without meeting a fellow-traveller; when you do occasionally come across a group of haymakers, they look upon you with grave suspicion and, knowing nothing of their language, you are unable to set their minds at rest and assure them of your amicable intentions; you can only go on your way feeling your loneliness more than ever.

The Auronzo valley is but little visited at present by the ordinary tourist, and is consequently quite unspoiled; to such an extent, indeed, is it undesecrated that the pedestrian

who purposes to explore its beauties would do well to provide himself with food for his journey, for the inns are few and far between.

From the Misurina Lake a good road runs down into the Val Buona, from which point the Val Auronzo runs due south. We reached the lake about nine o'clock in the morning, having walked down from Tre Croci; to our dismay we found that the diligence did not start until five in the afternoon, and as the price for a carriage seemed to us exorbitant we made up our minds to walk. A lengthy, and at times heated, discussion took place as to whether we should take our rücksacks with us or leave them to be brought on by post. Age and experience was in favour of the former course, while youth and inexperience strongly urged running the risk and not encumbering ourselves with baggage. Age carried the day, though it may here be freely admitted that youth submitted with the utmost grace.

As soon as we had crossed the frontier into Italy the character of the country seemed to change. Out of the comparatively barren

land, sparsely dotted with pine trees, we suddenly entered a region of richest vegetation, teeming with insect life.

Close to the roadside the fields were full of wild flowers growing in lavish profusion; large orange lilies, pale yellow thistles, orchis, smaller lilies, gentian, and hosts of other varieties, went to make up a picture of luxuriance that was most striking; with the enthusiasm of amateurs we began to gather specimens but speedily found that they suffered the fate of specimens similarly collected, and withered away. On every flower-head we saw clusters of butterflies and beetles, of all sizes and colours; we did, indeed, succeed in capturing two very fine beetles, and imprisoned them in a match-box.

On the way down from the Misurina Lake the whole mass of Sorapiss lay stretched before us, with Antelao in the distance to the left, but in the Auronzo valley itself it was Monte Marmarole that dominated the scene.

It was a curious experience to walk down this beautiful valley in mid-summer, at the height of the "season," and never to meet a

single traveller; the weather was brilliantly fine, the views of the mountains were wonderful—the contrast between the abundant vegetation below and the bare rocks above being very impressive. At one point the author, lost in admiration at the rare beauty of the scene before him, turned to call the artist's attention to the colours, and found him contemplating with awe a row of—French beans!

We had started on our day's tramp unprovided with food of any kind, and, in the pride of our hearts, had passed by one or two rather uninviting-looking *ristoranti*, hoping for better luck later. As the day wore on, however, the claims of the inner man began to assert themselves, but there was now no sign of an inn anywhere. About half-past two we came across some haymakers, and endeavoured to find out what were the chances of obtaining food; we learned, to our dismay, that we had left the last *ristorante* an hour behind, and should not meet with another until Auronzo itself was reached—about two hours further on!

We endeavoured to stave off the pangs of hunger with wild strawberries, but, excellent and tasty as those well-meaning little berries are as a finish to a meal, they were hardly an efficient substitute for the solid mid-day feast to which we had become accustomed.

Once or twice our hopes revived when we came across an isolated cottage; here we made futile efforts to obtain nourishment. The author, as the linguist of the party, would timidly approach a peasant, holding out in his hand coin of the realm, and murmuring softly the only Italian words he knew. This proving ineffective, the artist would then step forward boldly, waving the timid author contemptuously aside. "Ristorante? No?" he would say, in his most commanding tones. But the obtuse peasants shook their heads, the artist retired hurt, and we had to go on our way unsatisfied.

According to our trusted guide-book, an inn was to be found at Miniera Argentiera—where also there were said to be lead and zinc works, and with hopes rekindled we crossed the river

to make inquiries. But a brief inspection showed us that the place was absolutely deserted; all the signs of habitation and industry were there, but everything was still—it might have been a village of the dead, or cast under a spell; one almost expected to come across recumbent figures, as in the tale of the Sleeping Beauty, but even that satisfaction was denied us, and we had to set out again hungry and empty.

For a time we tried to cheat ourselves by composing imaginary *menus* of the feasts that we would command if it were possible, by some means or other, to obtain those convenient magic tables of which we had read in our youth. And it was interesting to note what an inspiring effect the pinch of hunger had upon the imagination; but we came to the conclusion that the Barmecide feast is an over-rated form of entertainment, inferior even to the wild strawberry. At last, however, Auronzo appeared in sight, and about 4.30 we were able to secure a good meal and excellent accommodation.

All the peasants we had seen working in the fields were delightfully picturesque in appearance—tall, strong and dark—almost gipsy-like in complexion—the women and children with bare feet, and handkerchiefs bound round their heads, and the men with an air of distinction about them; we felt that any one of them might be a duke in disguise.

The village of Auronzo, or rather the two villages — Villapiccola and Villagrande — is quite one of the most surprising spots in this country of surprises. From the artist's point of view the houses are ideal; quaint wooden structures, with queer balconies and staircases that seem to serve no useful purpose whatever; chimneys budding forth out of the walls in all sorts of unexpected places; everything picturesque, old-fashioned and symmetrical, and yet—all furnished with electric light! It is an extraordinary mixture of mediævalism and modernism, but in this strange country nothing seems out of place; one is continually being subjected to a series of shocks. The mountains themselves are unlike any moun-

tains one has ever seen or heard of before, and it is only fitting that the villages, too, should be quite contrary to all conventions.

We spent the rest of the day in wandering about the village, enjoying the quaint sights that met us at every corner; groups of soldiers playing at bowls and dancing with each other to the strains of a hurdy-gurdy played by a blind musician; girls coming to the well with queer yoked pails on their shoulders; wagoners struggling with brakes on their carts of the most elementary kind; and then, the street was suddenly ablaze with electric lamps. The contrast was too ridiculous, and we retired to rest. Investigation of our match-box showed that the very fine beetles had managed to escape; it was with a somewhat uneasy feeling that we scrutinised our garments, but the two brilliantly-coloured creatures were never seen again.

The next morning we witnessed a funeral procession going through the street, and were carried back again to the Middle Ages. First came the priests, with the cross, candles and

A HOUSE IN AURONZO

banners; then a pathetic figure bearing the cradle of the child to be buried; then all the men of the village apparently, followed by the women.

After this we were favoured with a short visit from a troop of mountain soldiers who halted for a rest just opposite our inn; there were here no annoying restrictions as to photographing, so the author sallied forth with his camera to take a snap-shot of the party. Far from resenting this, the soldiers seemed to think it a great honour, and elbowed each other out of the way in order to get into a front place—quite oblivious of the fact that there was no human probability of their ever seeing the result. However, as they were pleased, and the photographer was also pleased, everything was satisfactory.

We went on by diligence from Auronzo to Pieve di Cadore. It would be impossible to imagine anything more leisurely than the Italian post-wagon; everything is carried on in the most easy-going way. No one thinks of hurrying or putting himself out, or expects

anyone else to hurry. It would be inconceivable that any traveller, however dilatory, could ever manage to miss an Italian post.

The road, which is an excellent one, leads past the hamlets of Lozzo and Domegge, and finally reaches Pieve di Cadore.

This village is celebrated as the birthplace of Titian. The house in which he was born stands in a corner of the piazza, and a bronze statue of the painter was erected in the market-place in 1880. Apart from the fact of its being the birthplace of the great artist, it may be doubted whether Pieve di Cadore would ever attract much notice. The village itself is not nearly so attractive or picturesque as Auronzo; the houses are, for the most part, white-washed and ugly; the church is, indeed, unusual; it looks more like a collection of the blocks used in teaching solid geometry than anything else, but it cannot be said to be beautiful. The school contains a small museum of coins, antiquities and natural history objects, and there is also to be seen here Titian's patent of nobility.

The situation of the village is very fine, and one can quite imagine that it may have inspired some of the landscapes which the painter in after life utilised in his pictures. It stands high on a spur of a mountain above the Piave, and commands a beautiful view of the surrounding district. From Pieve di Cadore a high road runs south to Belluno and thence to Feltre, the southernmost point of the Dolomite region; but the pedestrian can do much better than to keep along the high roads, and by a judicious use of the numerous passes can obtain finer and more characteristic views of the country.

An early start from Pieve di Cadore was intended, but once more it was demonstrated to us that the Italian is quite independent of time; with a great effort we reached the market-place by 6.30, shortly before the time at which the diligence was advertised to start, but we might just as well have stayed another half-hour in bed, for we had to wait patiently for fully that length of time before there were any signs of our conveyance.

When at last we did get off it proved to be one of the very slowest methods of travelling that we had ever met with; at first we were touched by the consideration which the driver showed for his horses—he was able to detect a slight rise in the road long before we could, and would slacken pace accordingly. We felt that here, at any rate, there was no need for any vigilant Society for the Prevention of Cruelty to Animals. We had ample time, too, to admire the ever-changing beauties of the scenery as we very gradually made our way along the valley and round the hills. After a while, however, we felt that the consideration shown to the beasts was perhaps a little over-done, and that some might be extended to the passengers, but we knew that nothing we could say or do would have the least effect—threats, entreaties, prayers would all be useless—so we steeled ourselves to endure a five hours' journey in the hot sun, by means of which we at length accomplished a distance of some 18½ miles.

As we entered the Ampezzo valley (which

we had seen before from the upper end) we realised that we were once more getting near the real Dolomites; the familiar grey peaks, splashed with delicate fawn colour, and now and again enriched by a strain of red, presented quite a home-like appearance. We felt that we had for the previous two or three days been wandering in a far country, and were rejoiced to see our old friends again.

The dominant features of the lower end of the Ampezzo valley are Monte Antelao on the one side and Pelmo on the other. Monte Antelao (10,710 feet) is one of the most striking peaks as seen from Cortina itself, but Pelmo (10,395 feet) is seen to better advantage from Colle di Santa Lucia on the other side.

Once more we crossed into Austria (it is quite an effort to recollect in which country one happens to be, so constantly does one cross the frontier) before reaching the broad prosperous part of the valley in which lies Cortina.

CHAPTER IV

CORTINA AND THE AMPEZZO VALLEY

PERHAPS it would be as well to admit at once that we did not climb the Cinque Torri; did not even go up to Belvedere or visit the Ghedina Lakes. We may even add, at the risk of alienating the sympathies of some of our readers, that we were glad to leave Cortina behind us.

We had understood that Cortina was "admirably adapted for a prolonged stay," and we had accordingly arranged to devote some time to a place of such magnitude and importance. We found, however, that it was very crowded, hot, and none too comfortable (it may be that we were unfortunate in our choice of quarters); a large notice advertising English afternoon tea greeted us as we entered the village; a band played in the square in the evening; and altogether we felt that we might almost be in Lucerne in the month of August.

CORTINA

The situation of Cortina is undoubtedly very beautiful; the town (for it is really more of a town than a village nowadays) is the chief one of the commune of Ampezzo, and is the seat of the district authorities. For a good many years past Cortina has been well known as a pleasure-resort, particularly among English and American tourists, and the consequence is that there are numerous large hotels where one may indulge to one's heart's content the passion for evening clothes and afternoon tea.

The valley runs north and south, and the road from Toblach enters it at the northern-most point; another good road to the east leads to Tre Croci, while the Falzarego Pass to the west runs to the Pordoijoch and the Karer Pass and Botzen.

On the afternoon of our arrival we ascended the church tower (nearly 250 feet above the street) and had a fine view of the surrounding country; on the north-east is the Pomagognon and the group of Monte Cristallo; directly east lies Tre Croci; to the south-east are the

Punta Nera, and the magnificent masses of Sorapiss and Antelao; Monte Pelmo lies to the south, with the Rocchetta and Becco di Mezzodi in the middle distance; the serrated ridge of Croda da Lago rises to the south-west; then come the Crepa di Zuoghi, the Nuvolau and the Cinque Torri; to the west one sees Tofana and the Lagazuoi, while northwards the view is completed by the Col Rosa, Lavinores, Seekofel and Croda dell' Ancona.

In the evening we were fortunate enough to see a truly magnificent sight—Monte Antelao bathed in the sunset glow. We were then able to realise the peculiar glory of the Dolomite district. In the Swiss Alps, the *Alpen-glühen*, where the snow-peaks assume a rosy hue, is usually confined to a comparatively small portion of each mountain; the summits catch the light of the setting sun, glow with soft radiance, which then fades away; but here at least two-thirds of the huge mass of Antelao stood out against the sky—one brilliant pink mountain. Although it was some eight or ten miles away every

point and crag seemed to be sharply defined, and the effect of the enormous, brilliant mass was almost incredible.

We realised, however, that the scene was quite characteristic of the Dolomites; nowhere else, surely, are such incredible effects to be met with. At first one feels a sense of affront; you know that, according to all the rules of the game, these weird colours are not allowed; they belong so obviously to the decorative school, they must not be regarded as realistic, for they are quite unbelievable. No one ever saw a mountain of that colour; it may be (and undoubtedly is) very beautiful, but it is clearly untrue to Nature.

We have to reconcile ourselves, however, to the fact that Nature has apparently set herself, in the Dolomite region, to upset all our preconceived ideas respecting mountain scenery. In shape, in colour and in arrangement of these peaks she deliberately achieves the impossible.

It was something of a shock to turn from this gorgeous spectacle to see the town band

assembling in the square, and presently to listen to the strains of—the Merry Widow Waltz!

The climate of Cortina is said to be temperate throughout the year. There are those who allege that it is cooler in summer than Primiero, Agordo or Caprile, because it is less enclosed by the surrounding mountains; we were, perhaps, unlucky in our experience of it, for we found that it was not so agreeable in any respect as any of those places. The soil of the district is poor and the chief industries of the valley (apart from inn-keeping) are wood-cutting and pasturage.

We had a good opportunity of seeing the peasants in their distinctive costumes on the following day, for it happened to be a Sunday, and they came trooping to church in large numbers, all dressed in their best. The prevailing colour of the women's dresses was black, and the little round hats, with long ribbons streaming behind, were quaint but by no means beautiful. There was little variety in the costumes, except in the matter of

quality; the men's dress exhibited no special features of interest.

Cortina seems to be almost given over to the English and Americans—they are catered for at every turn. We visited some afternoon-tea rooms (where we obtained excellent refreshment), with the latest English newspapers and notices of a lawn-tennis tournament that was to take place; English Church services are held; photographic plates and films may be developed; picture-postcards innumerable may be obtained.

In the afternoon we made a short excursion up the Tre Croci road, whence one may get a good view of the valley, with Tofana, Nuvolau and the Croda da Lago opposite.

We decided, however, not to prolong our stay, and determined upon an early start, after despatching our luggage by post in advance.

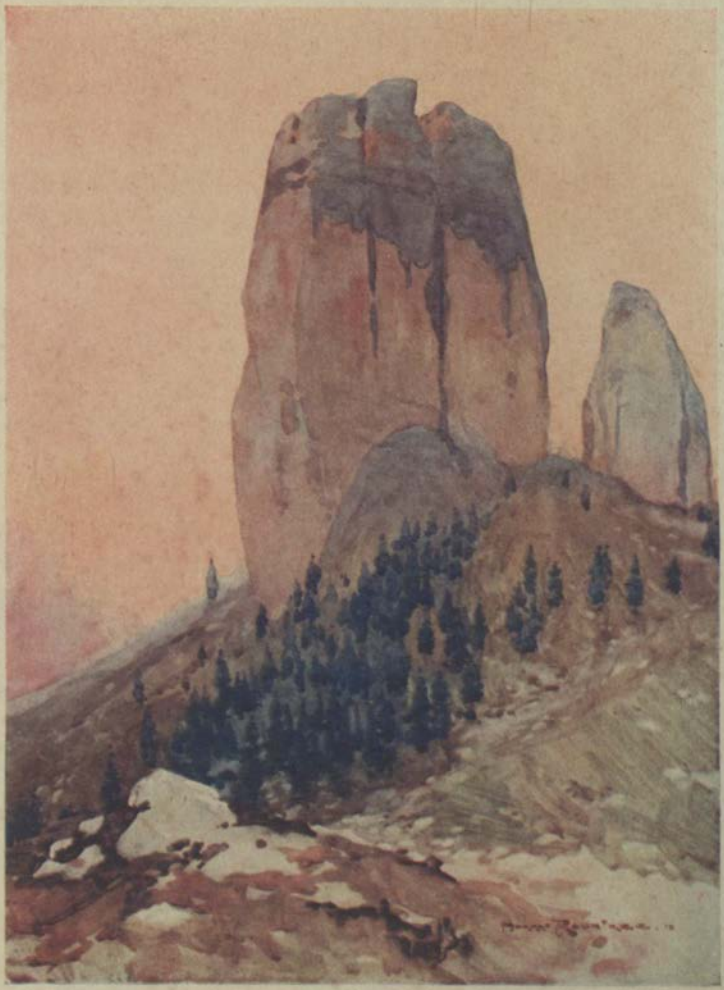
The town band once more obliged—this time with a pot-pourri from *Tannhäuser*. Imagine a pot-pourri in the Dolomites! But it seemed to be suited to Cortina.

CHAPTER V

CORTINA TO COLLE DI SANTA LUCIA—THE NUVOLAU AND THE SACHSENDANK HUT—MONTE PELMO AND MONTE CIVETTA

EVERYONE knows the Cinque Torri by sight. They are, perhaps, the most-photographed group of rocks in the Dolomite region. Wherever we go we are confronted by a picture of the Cinque Torri; the Cinque Torri from the north, the Cinque Torri from the south-south-west, the Cinque Torri from the east, the Cinque Torri from the west-north-west, the Cinque Torri at sunrise, moonrise on the Cinque Torri, a difficult position on the Cinque Torri—until we get to be (quite unreasonably) annoyed with the Cinque Torri.

The inevitable result is, that when one is face to face with these victims of the camera a sense of disappointment is experienced. Imposing, of course, they are, from certain



THE CINQUE TORRI

aspects—it would be difficult to find any group of Dolomite rocks that were not impressive from some point of view—but when one gets above them, or sees them in relation to their greater neighbours, they appear pitiably insignificant.

But the Cinque Torri are the goal of the ordinary tourist who stays at Cortina. It is a respectable walk up-hill to reach them, and once there an imposing photograph may be taken. We heard an amusing account of how an American lady had climbed the Cinque Torri. She hired a guide, assumed the proper climbing costume, was properly roped at the foot of the rocks and started up with a light heart. Presently the guide disappeared round a corner and called to her to "Come on!" To her it did not appear as if there were anywhere to come on to, but, having heard that it was a good plan always to put one's foot where the guide had put his, she took her courage in both hands and let herself go. By some means or other she was hauled, dragged or pushed up, arriving at the summit in a state

of breathless exhaustion, having left most of her attire dispersed about the rocks. However, she had " done " the Cinque Torri!

We left Cortina early, as arranged, and made our way up the hill-side towards Belvedere, leaving that spot, however, on our left. For some distance we kept to the road of the Falzarego Pass, but after a time diverged to the left and visited the famous Cinque Torri.

We were much more impressed on the way up by the views which were obtained of Tofana. Tofana, which consists really of three peaks — 10,565 feet, 10,635 feet and 10,600 feet respectively—certainly brings itself before one's notice in a remarkable way; now one peak and now another shows above a foreground of pines, the summit lightly sprinkled with snow, the rock itself cut off from all vegetation by a sharp line of demarcation, and rising bare and grey into the brilliant blue.

From the Cinque Torri we ascended to the Sachsendank Hut, which is situated on the summit of the Nuvolau, and commands a

wonderful panorama of the Dolomites, extending to the Oetzthal and Stubai glaciers, the Königspitze and the Grossglockner, Sorapiss, Antelao, Marmolata, Civetta, Pelmo and Tofana. All the giants of the district are ranged round this favoured spot, and at one's feet lie the inconspicuous Cinque Torri, now seen in their proper relationship to their more exalted neighbours. The huts of the D.O.A.V. (the German and Austrian Alpine Club), of which there are many in the Dolomite district, are of course erected mainly for the benefit of climbers, who use them as starting-points from which they make their ascents, but in summer they are also frequented by the less ambitious mountaineers, and afford welcome and excellent refreshment to those who are content with the humbler passes.

We availed ourselves of the entertainment offered and made an excellent meal. We were surprised to find here actually an Englishman! The artist was much attracted by his appearance, and declared that he was a person of culture and refinement; he insisted

that he looked to be an admirable example of the intellectual Englishman. The author, on the other hand, was drawn to a thin, ascetic-looking individual, who sat alone in a corner; it was much more likely, he maintained, that this man was the man of letters. A reference to the visitors' book later on revealed the fact that the artist's *intellectuel* was a bank clerk, and the author's man of letters a guide!

We descended from the hut over pleasant green pastures into a delightful path which skirted the mountain side—winding in and out, high up above the valley, with views here and there through the pines towards the peaks in the distance. We thus finally reached Colle di Santa Lucia, a small village beautifully situated on a mountain terrace, with extensive views of the Val Florentina, and the finest view of Monte Pelmo. We made our way up to the little churchyard and sat there for a long time watching the sunset.

It has already been remarked that, in the Dolomites, one meets with a succession of surprises; the extraordinary shapes of the

peaks, the weird coloration of the rocks, completely upset one's preconceived ideas of what mountains look like—for here one is confronted by quite unusual mountains.

With Monte Pelmo, however, it is different; it is with almost a sense of relief that you meet with a mountain which may be called conventional. Monte Pelmo fulfils one's ideas of what a mountain should be—there is no marked eccentricity of shape, no fantastic grouping of rock masses, no extraordinary colouring—but the sense of majesty and grandeur which it conveys, serenely towering above the fertile valley—*facile princeps* among all its neighbours—make it one of the most satisfactory peaks in all the district.

Why are mountains always, or almost always, made of the masculine gender by the poets and writers of descriptive prose? Perhaps it is because they so often suggest massive grandeur and strength; but this applies to what we have termed the "conventional mountain." After seeing some of the Dolomite peaks the idea irresistibly occurs to one that

we may meet with the counterpart of the queenly as well as the kingly among mountains. Nowhere was this more forcibly suggested than in the successive views of Monte Pelmo and Monte Civetta.

Monte Pelmo is a king among mountains; everything about him is on the grand scale. The eye is carried gradually up from point to point, until it reaches the culminating peak; we feel that we are in the presence of a mighty monarch on a mighty throne—he towers above all the surrounding heights and will evidently brook no rival. At the same time he conforms to the general idea of what a mountain should be. Though of Dolomite formation, he seems to scorn the wild eccentricities of some of his neighbours; he seems to be an example of what may be done with this particular material, working along conventional lines.

But if Pelmo is a king, Monte Civetta is undoubtedly a queen. The actual termination of the word would seem to suggest that, in naming the mountain, it was felt that a mas-

culine suffix was out of place. See Monte Civetta in the early morning light and you can no longer have any doubt.

A thin veil of filmy mist shrouds all her features; one sees only her magnificent form outlined against the brilliant sky; at her feet lie the delicately-coloured waters of Lake Alleghe, a marvellous peacock-green. It is not until the afternoon that Civetta consents to unveil and display her radiant charms; then, as the day declines, she assumes the glory of the setting sun, but in the morning, like a lady of high degree, she delicately shrouds herself from the vulgar gaze.

From Colle di Santa Lucia we descended to Caprile—incidentally crossing once more into Italy — and thence made our way to Lake Alleghe. The lake owes its origin to a landslip which occurred in 1771, and four villages now lie hidden beneath its waters.

It is said that a charcoal-burner, who had been at work in the woods, came down from the hills at evening, giving warning to those who lived in the plain to save themselves, for

the mountain above was moving. He ran from village to village, crying his terrible news as he went, but met with the fortune of a Cassandra, for none believed him; the people of the four villages went to bed as usual that evening, heedless of any danger.

In the dead of night, however, the whole side of the mountain came down with a mighty rush and overwhelmed the sleeping hamlets; two of them were buried and two were drowned, for the waters of the Cordevole, suddenly driven back, spread out and formed the lake as it now exists.

This happened in January, and in the following May another downfall occurred; the waters of the lake were driven up the valley and caused even more destruction than before. There used to be a tradition that in winter, when the lake was frozen and the ice not too thick, and even in summer on very calm days, the walls and roofs of one of the drowned villages might still be seen, and that at midnight the bells of the church could be heard tolling under the water for the unburied dead.

A DISASTER

The tale of the sudden, swift and overwhelming disaster meted out to the unfortunate villages seems to accord with one's idea of an offended queen visiting an awful punishment on the heads of those who had dared to cross her sovereign will. One cannot help fancying, too, that the charcoal-burner must have played some not inconsiderable part in the drama which surely began before the disaster occurred. Perhaps he was favoured above his fellowmen by the spirit of the mountain, and was warned of the approaching doom, and then sought to communicate the awful knowledge to his friends? Note, too, that it was not Civetta herself who carried out the sentence; she delegated the dreadful task to a smaller mountain, Monte Forca. There seems to be ample material for a very stirring legend on the subject. Monte Civetta remains, however, silent and impassive.

Miss Edwards, in her *Untrodden Peaks and Unfrequented Valleys*, says of it, " It is seamed from crown to foot with thousands of vertical fissures, and, rising in a mighty arch towards

the centre, faces to the north-west, looking directly up the Cordevole towards Caprile, and filling in the end of the valley as a great organ-front fills in the end of a cathedral aisle. Towards evening it takes all the glow of the sunset. In the morning, while the sun is yet low in the east, it shows through a veil of soft blue shade, vague and unreal as a dream."

" All ruddy in the sunset," says Mr Gilbert in his book on the Dolomites, " its pinnacled façade rose like some stupendous cathedral in the vista of the valley, and Caprile nestled at its foot. That view, favoured certainly at the moment by its suddenness, and by the striking effect of light, remains almost unrivalled in our Alpine experience. The mountain is Monte Civita. We have since explored it on all sides, and for scenic effect it still holds the first place among its Dolomite brethren."

Our host at Colle di Santa Lucia was, it appeared, the guide whom the author had so much admired in the Sachsendank Hut, and he asked if he might accompany us on our way to Caprile. We assented, of course (though

MONTE CIVETTA AND CAPRILE

there did not appear to be any need of a guide on the short walk), and he entertained us on the way by accounts of his various ascents of the mountains; it is to be feared that he was not altogether above the suspicion of being a flatterer, for he assured us that he had made the only two ascents of Monte Civetta that had been accomplished from one side, and that on both occasions he had been guiding Englishmen!

We learned too, with some surprise, that the neighbourhood had recently been disturbed by thieves; it was a disquieting thought, that of burglars in the Dolomites—one somehow is loth to associate the lesser human failings, at any rate, with this majestic scenery; we should prefer to think that no unworthy deeds were ever committed among these beautiful surroundings, and the notion of anyone stealing spoons beneath the shadow of Monte Pelmo and Monte Civetta is outrageous! At least, one expects crime on a grand scale if we are to have it at all.

We took a boat along the lake to the further

end and much enjoyed the change as well as the wonderful view of the mountain.

The road to Agordo down the Val di Cordevole was hot and dusty, but the stream running by the side offered tempting refreshment to perspiring pedestrians. We resisted for a long time, but at length, as the traffic along the road did not seem to be excessive—we walked for miles without meeting a soul—we selected a comparatively retired spot and indulged in the luxury of an open-air bath. It is evidence of the fact that the Dolomite region is not yet overrun by tourists that we were able to enjoy a bathe in a river close to a high-road unobserved by any passer-by.

Cencenighe, a small village between the Val di Cordevole and the Val di Canale, was reached about mid-day and afforded more material refreshment. From there to Agordo the journey presented no special features—except that another invigorating bath was indulged in with impunity.

Agordo is a quaint, straggling village with the houses and inns clustered round a large,

green sort of square, whereon the children disport themselves; once more we were struck by the incongruity of seeing large electric lamps shedding a brilliant light on the open space, while beyond rose the outlines of the mighty hills—seemingly so close that they looked as if we had but to stretch out a hand to touch them.

At 6.45 in the morning we started for Primiero, and, in view of a somewhat lengthy day before us, went so far as to engage the services of a porter to carry our impedimenta for, at any rate, a part of the way. It was with some compunction that we handed over to him our rücksacks (which we had carried with many groans and sighs the day before); but our sympathy was apparently quite wasted for he carried with ease all our belongings, and we were enabled to accomplish the first part of our day with comfort, untrammelled by any superfluous weight. We entered fully into the feelings of relief that Christian experienced when his burden fell from off his shoulders.

The view looking back towards Agordo in the morning light was one of exquisite charm; the lower parts of the mountains (the Pale di San Lucano) were shrouded in a delicate blue mist, the tops were brilliantly illuminated, while with the village in the foreground we had an impressionist sketch of Dolomite scenery spread out before us.

The road led up through woods and fertile pastures, with fine views of Monte Agner, past Frassene to Gosaldo, where we parted with our porter. Here we had a frugal meal—thinking that we were most fortunate to be able to order a chicken, until it appeared with its head still on its shoulders—and then we pursued our way through the village of Mis, across into Austria again, and up the Cereda Pass.

The clouds had been gathering round the tops of the peaks all the morning, and as we reached the head of the pass it began to rain. We managed to gain the shelter of the small inn just in time, for a few minutes after we had got in the storm broke and the rain came down

heavily for about an hour and a half. As soon as it was over we set off for Primiero once more and got down quite comfortably, though it is certainly no exaggeration on the part of the guide-book to describe the path as stony; the woods were steaming after the heavy rain and the road resembled a small watercourse.

Suddenly we came across an open space and saw Castel la Pietra perched on its inaccessible rock, straight in front of us. It was the property of the Welsperg family, by whose ancestors it was built in feudal times.

"I cannot imagine," says Leslie Stephen, "a more enviable dwelling-place for a baron of a few centuries back. From his rocky fortress he looked down upon the little village lying at his feet, and, having the power of life and death over its inhabitants, was doubtless regarded with universal respect. The most practicable road into this secluded country lay immediately beneath its walls, and must have enabled him conveniently to raise such duties as were compatible with the commercial

theories of the epoch ; that is, he could take whatever he liked."

The single precipitous rock on which the castle stands has split from top to bottom, and this has rendered it literally inaccessible without the assistance of guide and ladders. Once in the last century the owner did succeed, with ropes and ladders and workmen from Primiero, in climbing up to the deserted castle, but it is now but rarely disturbed and stands, a lonely sentinel, at the head of the Val di Canali.

It is a quaint sight nowadays, but the trees which have climbed up all round rob it to some extent of its awesome and commanding prerogatives.

CHAPTER VI

PRIMIERO AND THE PALA GROUP—THE VAL DI CANALI

"WOULD the *Herren* like to see the prospect from my garden?" The *Herren* would. Our courteous and obliging host thereupon led us to a spot some distance from the inn, to a queer sort of enclosure filled with flowers and vegetables, in the midst of which was a little arbour covered with creepers. This was evidently the glory of the place, and the proprietor was immensely proud of it. Having duly admired his flowers, vegetables and arbour we were allowed to admire the view.

The mountains around Primiero would perhaps best fulfil the expectations of those who have read of, but never seen, the Dolomites; they have been described as "the fairyland of the Alps"; possibly the view of the Rosengarten from Botzen is the most char-

acteristic of the Dolomite scenery, with the strange, rocky walls, splashed with vivid colour, and the pinnacles and towers twisted into fantastic shapes, guarding the magic garden of the goblin King Laurin.

But the peaks of Primiero have an equal fascination. The district is one of particular interest, both from the nature of its scenery and from the curious history of the town itself —Fiera di Primiero. This latter point will be touched upon later.

It recalls memories, too, of Leslie Stephen, who was the first to draw attention to the hitherto unexplored beauties of the Dolomites, and who made the first ascent, in 1869, of the Cima di Ball and the Cima di Fradusta. One of the most charming of the papers in his delightful book, *The Playground of Europe*, is devoted to the Peaks of Primiero, and the first of these mountains reminds us of the famous John Ball, whose name is a household word among climbers.

The prospect from our host's garden was sufficiently fine to please the most exacting.

PRIMIERO

A cloudless Italian sky (though Primiero is actually in Austria it is impossible to think of it as anything else than Italian), with all the surrounding peaks sharply outlined in the morning light. To the south-east lies the chain of the Vette di Feltre, with Monte Pavione, like a huge pyramid, the highest point of the range; to the north lie the Sass Maor, the Rosetta, the Cimon della Pala, and the rest of those strange peaks which look down on the Val di Canali.

"Above the meadows of the Primiero valley," says Leslie Stephen in the paper already referred to, "there rises a long slope, first of forest and then of alp, to the foot of the mighty peaks, which spring at a bound to a height of some ten thousand feet. The two conspicuous summits in front are called the Sass Maor, and resemble, if I may be pardoned so vulgar a comparison, the raised finger and thumb of a more than gigantic hand. Behind them, I knew, lay a wilderness of partially-explored summits, with sides as steep as those of a cathedral, and surrounded by daring spires

and pinnacles, writhing into every conceivable shape, and almost too fantastical to be beautiful."

In the middle distance could be seen Castel la Pietra, now dwarfed almost into insignificance, and one was once more impressed (more particularly by the bitter complaints of the artist) with the rapidity with which the light here changed the colour, and, apparently, the form also, of the mountains. What seemed at one moment to be a deep cleft in the rock changed the next minute to a sharp pinnacle.

We were also struck by the fact that, so far, the colours of the rocks had not seemed nearly so crude as we had been led to expect. The Dolomites, indeed, appeared to affect the newest art "shades" in their colouring, and to eschew violent contrasts—except when the sun, that most daring of impressionists, forced them to adopt his most flamboyant reds and pinks.

We are reminded, in watching the rapid play of light and shade on these mountains, of what an incomparable show-woman Nature

would make; the comparison may seem somewhat derogatory to the dignity of the scene, but, as Leslie Stephen says, one can hardly be responsible for the strange freaks played in one's mind by queer associations of ideas.

Looking at the marvellous transformations in progress before our eyes we seem to see Nature as an obliging saleswoman showing her wares. In the early morning she brings before you her delicate greys and fawns—a varied assortment—and even as you watch and admire seems to say, "This does not please you? Then pray observe—I bring forward a cloud—and there you are! Exactly the same material only in a different shade! Perhaps you prefer a stronger note of colour? A touch of gold on this point, and you have it!"

With startling rapidity she runs through an enormous number of varieties, until you almost wonder whether it is the same mountain she is showing you.

The Val di Canali (not to be confused with the Val di Canale mentioned previously) runs

north-eastward from Primiero, past Castel la Pietra. (It is interesting, by-the-bye, to note the use of this word "Canali"—applied to streams flowing in their natural beds; it is an instance of the survival of Venetian ideas in Tyrol. To the Venetian every river or stream was a canal, and this district was for a long time administered by the great Republic which left her impress on the phraseology of some of the names.)

The road to the Val di Canali leads through the little village of Tonidico up to Castel la Pietra, and then, leaving the Cereda Pass on the right, along a most delightful path, through woods by a noisy stream.

It was in the afternoon that the writer set out alone to visit this renowned valley, for the artist, fired with the desire to try a new "method," refused to be lured from his canvas.

There was nobody to be seen after the villages were left behind, and as one got further up into the valley the sense of isolation increased. The scenery was wild and grand when one

emerged from the wood, and suddenly came out on to a wide open plateau with green meadows newly mown, looking for all the world like a well-kept English lawn. This ran up to a large white house, the Villa Welsperg, and directly behind, seemingly so close that one would suppose that they could be touched or reached from the upper windows of the house, a huge amphitheatre of Dolomites!

This villa belongs to the family that used to own Castel la Pietra; a widow is the sole survivor. We were told that she recently lost her only son, so that, presumably, the race will die out. The villa is still inhabited by the family for a certain period each summer.

In Ball's *Guide to the Eastern Alps*, the Val di Canali is referred to as one of the most extraordinary of mountain valleys. "The main branch of the Cismone," says Ball, "descending from nearly due north, receives a torrent from the north-east, issuing from Val di Canali. In the fork between these two branches rise the wonderful group of Dolomite peaks which must ever make this

one of the most extraordinary of mountain valleys. Whatever fantastic forms that rock may assume elsewhere, they are here surpassed in boldness and strangeness. Of the five or six highest, all much exceeding 10,000 feet in height, there is but one that seems accessible. The others are mere towers or obelisks of rock, with sheer vertical faces, or else, as the highest peak, fashioned like a ruinous wall, abruptly broken away at one end, and cleft at frequent intervals along the ridge by chasms that appear perfectly impassable."

This same valley impressed Leslie Stephen too, and moved him to one of his quaintest similes. "The huge barrier before me," he says, speaking of this amphitheatre of peaks surrounding the Val di Canali, "was the defence of that fairyland into which I was seeking entrance. The cliffs rose abruptly and with tremendous steepness, though their bases were joined to the valley by long slopes of *débris* that had accumulated in countless ages. It is impossible to paint such scenery in words, or to give any notion of the force with which

the bare rocks, a deadly grey in some places, and tinged in others with the ruddy hue common in the Dolomites, contrasted with the rich Italian vegetation at their feet. . . . I can never look at crevasses of a certain character without being reminded of the meal called five-o'clock tea; and it was certainly a closer analogy which on this occasion suggested to me the picture of a gigantic raised pie, such as sometimes makes the circuit of a table before any audacious guest makes an inroad into its contents. At last appetite gets the better of modesty: a sacrilegious hand is raised, and a few bold gashes with the knife make terrible rents into its solid sides, and heap piles of ruined paste in the dish below. Even so had some mysterious agent sliced and hacked the great Dolomite wall, and though the barrier still rose as proudly as ever along a great part of the line, there were deep trenches and gullies hewn through it at various places; masses had evidently given way at some distant period, and others were apparently threatening to follow them."

Nature seemed to have run riot here in the way of devising weird forms. If, indeed, these rocks are really the work of the coral insect (as some authorities believe) then the particular school which devoted themselves to the Val di Canali evidently determined to excel their brother artists in the matter of producing something out of the ordinary and—succeeded!

One cannot help feeling some doubt, as one looks at the extraordinary chain of peaks round this valley, as to this theory respecting their geological formation—the theory that they were built up in past ages by coral insects; doubtless the scientists have excellent reasons for their belief, but to the lay mind the notion seems, at the first blush, absurd.

The coral insect, like the ant, has always been held up as an example of what may be accomplished by persevering industry, and, as such, has seemed to be quite unnecessarily virtuous; but to suppose that any of these creatures deliberately set themselves to construct the Dolomites would assuredly be to

attribute to them even less intelligence than they have been credited with. For again the conviction was borne in upon one that these mountains are impossible; there never were any mountains like them before, there never will be again. No artist dares to put down on paper the effects he sees here, for none would believe him—and the idea that these enormous masses were built up by coral insects seems altogether preposterous, however accurate it may be from the scientific point of view.

Further up the Val di Canali one got a glimpse of the Val Pravitale on the left, where there is a small lake, and shortly afterwards the stream was left behind altogether. The noise of the rushing water soon died away, and one was left in absolute silence, surrounded by these mysterious peaks. It would be difficult to imagine a more awe-inspiring scene; there were no birds to be seen or heard—plenty of insect life and luxurious vegetation up to a certain point, but a sharp line of demarcation seemed to have been drawn, above which the

typical Dolomite peaks rose sheer and abrupt without a vestige of growth upon them, but supplying the necessary colours in the wonderful yellow and fawn splashes on their sides.

For a long while the writer sat alone in this deserted valley, seemingly cut off, not only from civilization but even from all humanity, and it was with a sense of relief that he heard at last the sound of cow-bells in the distance, and, thus reassured, made his way back to the haunts of men.

Perhaps one of the most extraordinary things about this extraordinary valley is the fact that it is so little visited; indeed, comparatively few tourists seem to penetrate as far as Primiero itself, which still retains much of its primitive charm—even if it is no longer, as Leslie Stephen described it, "lying at a distance of some thousand miles, more or less, and two or three centuries from railways and civilization."

It is true that electric lamps light the streets at night and that a post arrives with reasonable regularity, but reform has not yet progressed

so far as to prevent the landlady from waiting personally at table and displaying a kindly interest in her guests' welfare. Our hostess at Primiero, a most charming Italian signora, with no knowledge of English and a very limited acquaintance with German, delighted us by interpreting one item in the bill of fare as "Quack, quack!" Needless to say we felt bound to order this dish, and very excellent it proved.

It is still true of Primiero, at least, that the innkeepers are people of ancient family who have owned lands and held responsible offices in days gone by. And one should bear in mind the remarks of Miss Edwards on this point, remarks which, though made thirty or forty years ago, hold good with regard to some of the Tyrolean villages, at any rate, to-day. "It would be well," she says, "if persons travelling in these valleys remembered that they are not dealing here with innkeepers of the ordinary continental stamp, but with persons who are, for the most part, quite independent of the albergo as a source of profit,

and ready to receive strangers with a friendliness that does not appear as an item on the bill. If the accommodation is primitive it is at all events the best they have to offer; and it is immensely cheap. If the attendance is not first-rate there is a pleasant homeliness about the domestic arrangements which more than makes up for any little shortcomings in other ways. The mother of the family generally cooks for her guests; the father looks after the stabling; the sons and daughters wait at table. All take a personal interest in one's comfort. All are anxious to oblige."

This is true to-day of Primiero at any rate, except that one need not make any qualifying reservations respecting the accommodation or the attendance.

We did come across here some more English —and very astonishing persons they were too! The writer had arrived from his visit to the Val di Canali and was recounting his adventures to the stay-at-home artist and filling him with envy, hatred, malice and all uncharitableness at dinner, when there appeared

two elderly, aggressively respectable English ladies, who sailed to the other end of the long dining-table. The usual preliminary courtesies were exchanged, and then we were electrified by the following question: "I wonder if either of you gentlemen can tell me something I am anxious to find out. Do you happen to know whether there is any good recent translation of Aeschines?"

The artist sat dumb with amazement; he was not quite sure whether Aeschines was a town, a flower, or a range of mountains. The writer was quite helpless; the unexpected question was so baffling that he could only murmur feebly something about Jebb and retire hastily into his shell. It could only happen in the Dolomites, surely, that one could be asked about Aeschines at the table of a small country inn!

CHAPTER VII

SAN MARTINO DI CASTROZZA—THE ROLLE PASS —PANEVEGGIO — THE LUSIA PASS — THE FASSATHAL

SAN MARTINO is somewhat grandiloquently described in certain guide-books as the "Paradise of the Dolomites." It might, perhaps, be termed with more justice the "Paradise of the hotel-keepers," for the place is little more than a collection of hotels; but it is a great climbing centre, being within easy reach of all the peaks in the Pala group, and its situation commands a magnificent view.

The road from Primiero leads up the Val Primiero and goes straight into the heart of the mountains, ascending about 2500 feet in the course of some nine miles.

The most striking view from San Martino is that towards the east, where the Cimon della Pala, the Rosetta, the Cima di Ball,

and the Sass Maor rise straight up behind the little group of houses, and in the evening, when the setting sun shines full upon them, the effect is most extraordinary.

Westwards the view is a little disappointing; the hills are comparatively low, but their colour is quite wonderful; the rock seems to be a sort of mauve-pink, not very pleasing to look at, but undeniably unusual. It reminds one of nothing so much as the average coloured picture-postcards, whose tints we object to on the score of their impossibility; here, however, one is again brought face to face with the fact that nothing is impossible in Nature, and one finds the kindly coral insect coming to the rescue of the incompetent colour-printer and producing a mountain which, in point of colour, no one else would have dreamed of.

To the south, looking down the valley, there is a fine view of the Vette di Feltre, with Monte Pavione; in the clear, bright light this range looked exactly as if it were cut out of cardboard.

We had left Primiero with much regret, for

we were very comfortable, but the prospect of further questions about obscure Greek dramatists was too formidable to contemplate, and moreover, our programme had to be carried out. Accordingly we started early (before the English ladies had arisen) and took the diligence to San Martino, arriving there about nine o'clock. The rest of the morning and most of the afternoon was spent by the artist in trying still more "methods" and by the author in offering invaluable suggestions which were invariably rejected.

We had heard a good deal beforehand of the view to be obtained at sunset of the Pala group from San Martino, and waited anxiously during the day for the proper moment. Towards the end of the afternoon our anxiety increased, for clouds began to gather round the range and we were afraid that we were going to be robbed of the great spectacle.

At precisely the right time, however, the clouds obligingly began to clear, and then ensued the most extraordinary transformation scene it has ever been my good fortune to

watch. Gradually—almost imperceptibly—the mists lifted and disclosed peak after peak, lit up by the setting sun, the delicate colours of the rocks themselves making them glow with marvellous radiance. Below them wisps of cloud formed, melted, and re-formed, and floated along in front of the grey masses of rock, lending an impression of enormous height to each peak. It seemed as if it were a specially-arranged exhibition; for as one summit after another disclosed itself, and never two at once, it appeared as if they were trying to outvie each other in the effect they produced upon us. The Cimon della Pala, the Rosetta, the Cima di Ball, the Pala di San Martino, each showed its beauties for a moment and then delicately veiled its loveliness.

Later on, when we looked out of our room on the same range bathed in the moonlight, the mists had completely disappeared, and with them had gone the impression of great height and distance; so close did the mountains appear to be that it seemed but a step from our window-sill to the top of the peaks.

From San Martino the road leads northwards over the Rolle Pass to Paneveggio and thence to Predazzo.

Once more we made an early start by the diligence and found the ascent of the Rolle Pass most interesting; it was a bright morning and the view down the valley towards the Vette di Feltre was clear-cut and sharp, but the great point of interest throughout was the Cimon della Pala—the so-called " Matterhorn of the Dolomites."

As we saw it from San Martino the resemblance to the better-known Swiss mountain was sufficiently remote, but viewed from the northern side of the Rolle Pass it suddenly changed from an apparent flat-topped mountain of some length to a pinnacle rising sheer and abrupt to a sharp point.

Here again was an illustration of the fact which we have mentioned before with respect to the Dolomite peaks, namely, that their curious shapes render them very different in appearance when viewed from different points; one has to get a clear idea of the topography

of the district, for if one trusted to recognising the various mountains by their outlines one would soon be hopelessly lost. Monte Cristallo, as we have said, when seen from the Dürren See, is a totally different mass from the Monte Cristallo seen from Tre Croci; while the Drei Zinnen, as viewed from the Misurina Lake, might well be altogether separate peaks from the Drei Zinnen one looks at from Landro. But the Cimon della Pala was the most notable example of this peculiarity that we had come across.

The feature that interested us more than anything else about the Cimon della Pala, as we passed it on our way through the Rolle Pass, was the diversity of the colouring in the rock.

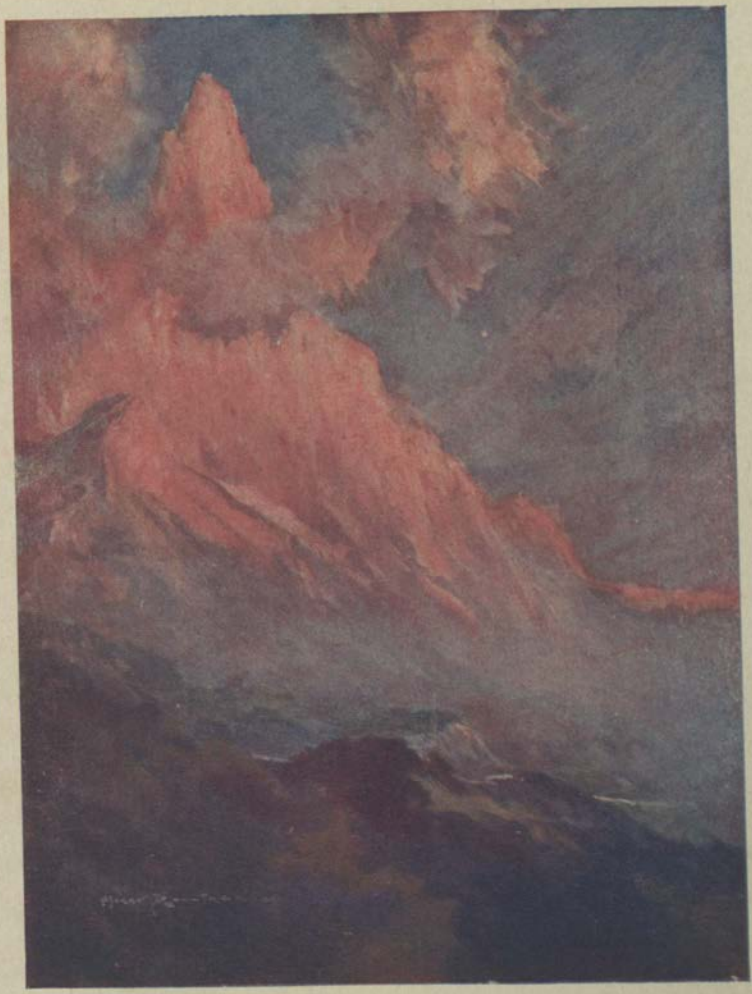
Here we could at last see all the boasted shades of the Dolomite of romance and travellers' tales; there was no doubt about it, for once rumour had not lied—nay, she had not been guilty of the slightest exaggeration. There was the familiar grey and fawn, of course (without which no Dolomite is complete), but

there were further streaks of rich orange, purple, a curious sort of mauve which was almost violet, and a delicate yellowish-green —all these tints in one mountain!

Truly, the coral insect which had charge of this particular piece of work had " let himself go " and given full play to his fancy. In places one was irresistibly reminded of the Neapolitan ice, so regular did the various colours seem in their arrangement.

We were lost in amazement at this extraordinary sight, but our fellow-travellers (Germans and Austrians, it is needless to say) were wholly occupied in getting edelweiss, which seemed to be abundant in these parts. We noted, however, that they did not gather it themselves, but bought it in bunches from the children of the district, who seem to have anticipated the demand and furnished a supply to meet it.

The nature of the scenery changed as soon as we had passed the summit of the pass; it proved tame and uninteresting, and we were mainly occupied in admiring the glorious



THE CIMON DELLA PALA

Cimon della Pala in retrospect as long as it remained in view. The road descended rapidly to Paneveggio, which consists, practically, of the hotel, and here we left the diligence, which went on to Predazzo,

We, however, had planned to walk over the Lusia Pass and left the main road at this point.

A long ascent through pine woods by a well-marked path took us at length to a level tract of meadowland, and thence to the summit of the pass (6745 feet above sea level), where we found a welcome inn. Here we partook of much-needed refreshment and rested awhile before making our way down to the Fassa-thal.

On reaching the other side of the Lusia Pass a further surprise awaited us; the Dolomite district is indeed unrivalled in this respect. It can furnish more surprises to the square mile than any other mountain district that is known. Looking back, we still had the Cimon della Pala, the Cima di Vezzana, and the rest of the group towering up against the

sky-line, but in front of us there suddenly appeared another large and important group, while away in the far, far distance was a line of snow Alps evidently of great height. A reference to the map (followed by the usual discussion) revealed the fact that the groups immediately in front of us were the celebrated Rosengarten range, with the scarcely less well-known Langkofel and Sella groups, while the remote mountains were made out to be the Oetzthal Alps. Every peak stood out clear and sharp in the morning light, and it was with something of a thrill that the author, at any-rate, looked for the first time on the magic garden of King Laurin. We had heard so much of this range before that we were almost prepared to be disappointed, but the first view of it quite came up to our expectations.

Predazzo is classic ground for the miner-alogist. It has been said of it on good authority that such a variety of igneous rocks within a comparatively narrow compass can hardly be found elsewhere in Europe; some have supposed that the village is situated in a

burnt-out crater, but every trace of the volcanic cones has disappeared. We are told, however, that there must once have been here, countless ages ago, a great eruptive centre, breaking out again and again, and each time throwing up a different kind of rock.

It is this great variety of igneous rocks that has attracted to Predazzo so many eminent scientists from all parts. As, however, we could not lay claim to the title we preferred to make our way straight to Moena.

Moena is a large straggling village where wood-cutting is carried on, and at this point the valley is known as the Fassathal; below Moena it is called the Fleimserthal. We had reached this point rather earlier than we had expected (mainly owing to the sudden energy exhibited by the artist), and we therefore determined to go further and make our way slowly up the valley to Campitello.

Accordingly we set out along the hot, dusty road in the middle of an exceptionally hot day. It is the whitest, hottest and dustiest road that ever was made by the hand of man.

With fiendish ingenuity it managed to evade every vestige of shade, going out of its way to keep well in the sun, and never offering the least opportunity to the parched and weary traveller in the shape of a tree or even a bush. We did once come to a trough of water by the roadside, and stayed there for some time, plunging our arms into it, and indeed getting as much of ourselves in the cool liquid as we could; but this only seemed to make our subsequent journey hotter.

It is a remarkable fact that the haymakers here in their mid-day rest do not appear to seek out a sheltered, shady spot, even on the hottest day, but lie out in the sun, as if they could never have enough of it.

" Now, in rich contrast to the pallid Dolomites soaring high in the distance," to quote Miss Edwards once more, " the famous porphyry of the Fassathal begins to break out in crimson patches among the lower hills, and to appear in the cliff-walls that border the Avisio far below. Yonder, where the stream takes a sudden bend, two isolated porphyry

pillars jut out on either side, forming a natural portal through which the narrowed waters rush impetuously. A little farther still and a whole mountain-side of the precious marble, quarried terrace above terrace, and apparently of inexhaustible richness, is laid bare to view. Now we recross the stream, and pass through the village of Soraga. Here everything except the grass and the trees is crimson. The ploughed fields are crimson; the mud under foot is crimson; the little torrent hurrying down the ravine by the roadside is crimson; the very puddles are crimson also. Even the roads are mended with porphyry, and great blocks of it lie piled by the wayside, waiting for the hammer of the stone-breaker."

Vigo di Fassa, the principal village of the Fassa Thal, lies about half a mile higher up from the road to the left, and is on the way to Botzen *via* the Karer Pass.

We passed by the road to Vigo, and after obtaining some sort of sticky liquid by way of refreshment at the little village of Pozza, presently came in sight of the Pordoispitze

(8235 ft), one of the Sella group. It dominated the scene and was a most imposing sight; it is rather darker than most of the Dolomites we had previously seen and seemed to convey an impression of massive strength rather than that of fantastic eccentricity.

With this magnificent mass in front of us growing in grandeur with every step we took towards it, we at last reached Campitello.

CHAPTER VIII

CAMPITELLO—THE FEDAJA AND FASSA PASSES —THE SELLA PASS—THE LANGKOFEL GROUP

IT gives one at first something of a shock to see a large notice prominently displayed at the entrance to a village bearing the word "*Adagio*" on it. We remember that we are in Italy, the land of song; we reflect that the love of music is ingrained in these people. Obviously, just as Pope was a born poet who "lisped in numbers, for the numbers came," so these people think in musical terms and print even commonplace notices in the language of music.

We then discover, however, that it is merely a warning to motorists to drive slowly when going through the village.

The idea still fascinates us, and we feel a little disappointment, on leaving the village,

that we do not see another notice board with, at any rate, "*A tempo*" inscribed upon it; we had almost hoped to see "*Allegro ma non troppo,*" or even "*Scherzando,*" but that would be too much to expect. Really, when one considers the matter, one realises how fitting the musical terms are to the movements of automobiles; how often has one seen a motor car indulging in *tempo rubato;* and many a *capriccioso* movement is performed, unwillingly, by an inexperienced driver.

Campitello is a quaint little mountain village lying at the base of the Langkofel. It is admirably adapted for various excursions—the Rodella, the Langkofel, the Plattkofel, the Schlern and the Boëspitze, all being within comparatively easy reach.

We had occasion to spend some time here quietly, attempting nothing on a grand scale, but contenting ourselves with a gentle walk towards the Contrin Hütte, with the idea of obtaining good views of the Marmolata.

The road up to the hut is easy, but the day was hot, and when we had reached a point

about half an hour from the usual resting-place, as we had our lunch with us and were independent of all inns, we were tempted to cut short our excursion and take our ease, more particularly as we had come to a fine view-point. The outline of the Sella group stood out boldly against a cloudless sky; it was of a strange colour, somewhat new to us, the rocks seeming to have much more green in them than we had seen hitherto. The Sella has been described as "looking as if it had been built after the design of the Tower of Babel and the work had been arrested at an early stage," and the description is not inapt.

In the other direction lay the Marmolata, which is one of the few Dolomite peaks which possesses a glacier. With its long snow slopes it approaches the type of the average Swiss mountain, and its summit is not, as is generally the case in this region, the topmost point of a rocky tower, but merely the highest part of a snow-field.

We were interested to observe, as we were sitting in the sun on the mountain side (as

usual, quite alone, with no sign of any fellow-creature to be seen), that a number of small brown butterflies persistently hovered round us and settled on our hands, arms and clothing in the most familiar way. At one time no less than four had settled on the artist's hands at the same moment, seeming to find a particular fascination in the artistic temperament.

We returned to our inn during the afternoon in time to despatch our baggage by the post, as we were intending to start on a two or three days' excursion on the following day.

The Fedaja Pass (6710 feet above sea-level) is reached from Campitello in a little more than three hours, and it is from the inn on the Fedaja Alp just below that the ascent of the Marmolata is usually made. For a long time this mountain was thought to be inaccessible. It is the highest peak in the Dolomites, being over 11,000 feet above the level of the sea—but, as a matter of fact, it is, for a Dolomite peak, comparatively easy of access.

The Fedaja Pass leads down into the Val Candiarei past the Sasso Bianco (7900 feet)

THE PORDOI-SPITZE FROM THE SELLA PASS

to the Serrai di Sottoguda, a magnificent gorge with enormous perpendicular walls; it is a mile in length, and in places so narrow that the path has had to be carried along wooden galleries above the stream. Beyond Sottoguda the valley broadens out, and shortly afterwards we come upon a carriage-road which leads to Caprile.

By the Fassa Pass (7535 feet) one may cross to the west of the Plattkofel, to the Confin Boden (whence a magnificent view of the Langkofel is obtained), across the Christiner-Weiden to St Christina in the Gröden valley. But a more attractive route is that by the Sella Pass, and this was the one we chose.

We left Campitello early (it is always advisable to make an early start on excursions of this kind), passed the little villages of Gries and Canazei, and ascended the pass with magnificent views of the Sella group, the Pordoispitze and the Marmolata on the way up.

The Sella Hut, a large, comfortable inn, 7275 feet above sea-level, is situated almost at the foot of the Langkofel group, and seems to be almost in the middle of a thoroughfare.

A constant stream of visitors was coming and going, and the hut presented quite an animated appearance; we were, however, once more struck by the absence of English travellers, all the people we met being either Germans or Austrians.

After a brief stay for refreshment we set off for the Langkofeljoch which runs (or rather climbs—for even a path could not be said to run up such a steep declivity) between the Fünffingerspitze and the Langkofel proper.

The Langkofel group resembles the Drei Zinnen, in that it consists of huge masses of isolated rock, of the same weird colouring. The palm must, however, be awarded to the Langkofel peaks; their shape is more singular and more beautiful, and their colour is more delicate and much to be preferred. The pass (which is merely a narrow path between two of the peaks) reaches the altitude of 8800 feet, and after a stiff bit of climbing the summit was gained and we made our way down on the other side.

The contrast was most striking; we had left a fairly open plateau, lying in the blazing sun, with the hospitable Sella House in the middle, and tourists passing to and fro along the well-marked road. We came down through deep snow into a narrow, barren, but most imposing gully, through a depression filled with débris, to the Langkofel Hut, which seems overshadowed by the enormous masses of rock underneath whose cliffs it lies.

As we had reached the hut so much earlier than we had anticipated, for the energy of the artist continued unabated, we determined to extend our day's journey and push on to St Ulrich. We accordingly made only a short stop at the hut, just sufficient to enable us to partake of an excellent meal (it is noteworthy, perhaps, that at all these huts one can always obtain a plate of capital soup), and then we made our way down towards the Gröden valley. We reached the Confin Boden all right, but here, for the first time in the course of all our wanderings, found ourselves at fault in hitting off the exact path.

It should perhaps be mentioned that, throughout the whole district, the paths are, as a rule, marked with unmistakable clearness. There are those—the purists among travellers —who object to having their way pointed out so clearly for them, preferring to guide themselves by instinct or the light of nature, with the assistance of the map and compass; but for the ordinary person the splashes of red, blue or yellow paint on the trees and rocks are most welcome, and it is a little difficult to see on what grounds they can be objected to. They are not too obtrusive, and in the case of misty or rainy weather they are simply invaluable; they add, moreover, a touch of picturesqueness to the comparatively dull parts of a walk (they were, indeed, quite dear to the heart of the artist, who found them far easier to "catch" than the Dolomites themselves), and are altogether much to be commended.

In this particular instance, however, the cherished red marks failed us, and after various excursions and alarms, heated discussions and

arguments, we found ourselves walking down to Wolkenstein instead of to St Ulrich.

As Wolkenstein is a good deal further up the valley than we had intended to go it was obviously necessary to turn off at some spot before we came to it, and after much persuasion, the artist was induced to desert the path on which we had entered. His position was perhaps a natural one; it was that, being on a well-marked path, we should do well to stick to it in whatever direction it led us. We were bound to get down into the valley somewhere, and one did not know what might happen if we left the road. This attitude, however, did not commend itself to the author, who pointed out that it betrayed a want of confidence in his guiding powers, and finally he induced his companion to accompany him on the adventurous journey down the hillside. By this means we managed to reach St Christina, which was at any rate nearer to St Ulrich than Wolkenstein, and that without any very hairbreadth escapes.

The day had been long and rather tiring,

so as we sat refreshing ourselves at a small inn in St Christina a brilliant idea occurred to the writer. He determined to hire a carriage and make our entrance into St Ulrich in style. The scruples of the rest of the party were overcome without much difficulty, and a conveyance was obtained in a very short time. We drove down the Gröden valley well pleased with ourselves and arrived at St Ulrich in time to escape a heavy thunder-storm.

We had sent on our luggage from Campitello on the previous day, and entertained faint hopes that we might find our bags here on our arrival; those hopes were, however, speedily dashed to the ground, and we were obliged to possess our souls in patience and await the advent of the next morning's post.

For the pedestrian, the system of sending on the heavier luggage by post—carrying in a rück-sack merely the necessaries for a night or two—is most convenient and by no means expensive. The only difficulty arises when one goes across the frontier into Italy; but this

may be avoided by a little forethought and arrangement.

If we may refer in these pages to a more than usually personal incident, we may here confess the reason of the anxiety with which the advent of the luggage was looked forward to on this occasion. A portion of the author's wardrobe, which was, it must be admitted, well-worn even at the start, had suffered severely during the day; so severely indeed that he found it necessary to wrap his wettermantel like a martial cloak around him, even when there was nothing in the climatic conditions to warrant his wearing it at all. The obliging *zimmer-mädchen* at St Ulrich was able to afford temporary relief (though she shook her head doubtfully over the garments when they were shown to her), but to a person of modest temperament the situation was distinctly embarrassing.

CHAPTER IX

THE GRÖDEN VALLEY—ST ULRICH

ST ULRICH is a very prosperous and flourishing village in the Gröden valley principally celebrated for the fact that some of the inhabitants still speak the Ladin dialect (which we were unable to verify for ourselves, but which we were quite willing to take for granted), and that the majority of those who are not engaged in hotel-keeping are employed in wood-carving.

The Ladin dialect is supposed to be derived directly from the Latin and not through the intermediary of Italian; it is, apparently, very different from existing dialects of modern Italian, and though "in some points closely resembling the Rhaeto Romansch of the Grisons, and the lower Romanese of the Engadine, it is yet so distinctly separated from both by well-marked differences, both

grammatical and lexicographical, as to indicate kinship rather than identity of stock."

The question, however, is one which is of interest to philologists only, and the present writer would not pretend to discriminate between, or pass judgment upon the views of, Niebuhr or Steub as to the unity of the Rhaetian and Etruscan languages; fortunately a knowledge of the Ladin dialect is not absolutely essential for the casual visitor to St Ulrich, for those inhabitants we met with were able to converse fluently in German.

The wood-carving industry is, however, of more general interest, and we felt that it was a subject that demanded careful investigation. We set out, therefore, in the morning, full of virtuous resolutions, determined to catch the wily wood-carver in his native lair.

Our first efforts were not rewarded with all the success we could have wished for; we made vigorous inquiries for a place where wood-carving might be viewed, and were entrapped into a large show-room, where a

great number of relatively inferior articles made of wood were offered at high prices.

We explained that this was not at all what was wanted; we wished to see the wood-carver at work—to view the little wooden animals we loved in childhood's happy days in the process of manufacture. All this, in the author's choicest German, at length produced the desired effect, and we were referred to Moroder's workshop; we could not mistake it as there was a large wooden figure outside.

We made our way through the village and found that the description given was not exaggerated, for the figure (whether it was that of an ancestor of Moroder, or a Tyrolese hero, or a Roman soldier, we did not discover) was fully twenty feet high and of noble proportions.

With a good deal of difficulty we did at last penetrate into the workshop and had the supreme satisfaction of seeing some of the wood-carvers at work and were duly impressed.

A great many of the people, however, work in their own homes, principally on toys—Noah's Ark animals and the like—and it is

said that one workman will spend all his time making nothing but horses, for example, each one precisely like the other, without the slightest variation in the pattern; another will make lions or cats or camels; but the maker of horses never entrenches upon the domain of the artist in lions, nor does the lion-maker venture to try his skill in making a horse.

The particular workmen whom we saw were employed on church work—wooden altar-pieces, lecterns and similar articles; they were most of them copying the designs from old prints, and while it was doubtless very interesting it did not strike us that the results were of a very high class.

We did, however, see various people carrying about large baskets filled with toys; one woman had her basket full of nothing but Noah's Ark horses, so that it really seemed as if there were some foundation for the stories we had heard.

There was also an exhibition of the work of one man—apparently quite a distinguished artist among them—who, besides producing

some really fine wood-carving, had painted a number of pictures in oils. Of the pictures it would be most charitable to say as little as possible, but some of the wooden crucifixes which were shown were very much above the average. They were all distinctly high-priced.

Miss Edwards tells how she visited one old woman who had devoted her life to carving cats, dogs, wolves, sheep, goats and elephants. Evidently she was a versatile artist, to be able to deal with as many as six animals. "She has made these six animals her whole life long, and has no idea of how to cut anything else. She makes them in two sizes; and she turns out as nearly as possible a thousand of them every year."

There was ample material here for discussion as to the benefit conferred by the introduction of machinery; St Ulrich would afford an excellent example of the advantages and disadvantages of hand-made productions. On the one hand, all the people seem to be fairly happy and contented in their work; but on the other, one cannot suppose that there

is anything particularly ennobling or dignified in going on doing exactly the same sort of thing from year's end to year's end, and even from one generation to another.

The weather continued to be most unsettled during our stay in the Gröden valley, but as our baggage had not yet appeared (to the continued embarrassment of the writer) we were perforce obliged to prolong our stay.

In the late afternoon of our second day in St Ulrich the rain ceased and we then enjoyed a magnificent sight.

The Sella group, at the head of the valley, and the Langkofel, which towers above the lower slopes to the right, had a good deal of fresh snow on them, and as the sun shone on the glittering surface the effect was truly wonderful.

There were, moreover, three distinct and separate strata of clouds: the lowest, brilliantly lighted, driving rapidly from north to south; the one above travelling in precisely the opposite direction at a slower rate, while far up in the sky was a fleecy line of white cirrus clouds.

As the sunset glow increased in intensity the spectacle became more and more beautiful; but the covering of snow destroyed the delicacy of the colouring of the rocks themselves, and we realized what the picture-postcard artists were, at any rate, striving after—even if they were not always successful.

There was still no sign of the luggage, and the author's anxiety hourly increased, for though, thanks to the kind offices of the chambermaid, all fears of immediate disaster were averted, the situation was far from pleasant as the day wore on and the garments continued to wear out.

We were again impressed (as we had been throughout the journey) with the great advantages of the German and Austrian hotel system over the English. The custom of having a restaurant attached to the larger hotels, where one may dine comfortably without being subjected to the tedium of *table d'hôte*, is one which must be appreciated by every sensible traveller. At the big hotels here and at Cortina there seemed to be a sort of double arrangement—a *table d'hôte* for those

THE LANGKOFEL FROM THE CONVIN BODEN

who wanted it, and a separate restaurant for those who preferred to dine *à la carte.*

We were also struck with the apparently inexhaustible energy of the German and Austrian tourist. Again and again we came across whole families of Germans toiling up steep passes (at a phenomenally slow rate, it is true), each one carrying his or her rück-sack, arriving at some Alpine hut, hot, panting and breathless, but triumphant and ready for further adventures after they had refreshed themselves with draughts of beer or wine. It is impossible to think of English families doing anything like this; with most of them the seaside is regarded as the only place when there are young children to be thought of, and by the time the young people are old enough to enjoy and appreciate the mountains properly, the parents consider themselves past the effort.

But here one sees small boys and old men, stout ladies and little girls, all enjoying themselves to the full together among the mountains.

There is certainly one point in which they

are absolutely unapproachable—and perhaps it is not altogether to be desired that they should be imitated in this respect—and that is in the amount of time and thought they spend upon their food.

It is quite amusing on a train journey to watch a family of well-to-do Germans; they seem to have provided a meal of some sort for every possible occasion. No sooner are they comfortably settled in the carriage than a large package is brought out and *schinken-brod* is distributed all round. This is followed by fruit of some kind (unripe apricots seem to be generally favoured), and, of course, a pocket-tumbler is handy and a bottle of wine is shared among the company. Should the train stop for any length of time at a station the opportunity of laying in fresh supplies, perhaps of sausages or hard-boiled eggs, is eagerly seized upon, while no one can let slip the chance of a glass of beer when it is brought to one's very lips.

This goes on all day until one wonders at the capacity for consumption displayed.

ARRIVAL OF THE LUGGAGE

Our second evening at St Ulrich passed without the arrival of the eagerly-awaited luggage, but the next morning our fears were dispelled, for they came by the first post, and the writer was able to effect a speedy change and dispense with the services of his trusted wetter-mantel.

This set us free, too, to embark on the next stage of our journey. We had proposed to ourselves to go on to the Schlern, and on the following day to make a long ten hours' excursion to the Karer See. The prospect was viewed with no little apprehension by the artist, but he was exhorted by the author to brace himself to the ordeal, and in a valiant state of resolution we retired to rest.

CHAPTER X

KASTELRUTH—THE SEISER ALP—THE SCHLERN

THE road from St Ulrich to Kastelruth is an easy one, leading through the villages of St Michael and Runggaditsch. Kastelruth itself is what is known in the guide-books as "a favourite summer resort," which generally means a place to be avoided; as, however, we had no intention of staying there for any length of time it made no material difference to us.

It lies in a hollow, with its church standing on a small eminence, and on a rocky hill below the village is a chapel to St Kummernitz. This saint was a lady about whom there is a curious legend. She is represented as wearing a beard, and it is said to have been granted her as a protection against the pertinacity of

her numerous suitors and to have been entirely successful in its design.

From Kastelruth to Bad Ratzes is a hot but delightful walk of four or five miles in the open. The bath-house (3950 feet above sea-level) is situated in the wooded ravine of the Frötschbach, close under the precipices of the Schlern. Just before Ratzes is reached, however, the castle of Hauenstein is passed; it is now a ruin, but was once the home of Oswald of Wolkenstein, the Minnesinger. This gentleman, it appears, was a celebrated knight and traveller who was born in 1367; "he fought against the Turks at Nicopolis in 1396; was present at the storming of Ceuta in 1415; encountered innumerable perils by land and sea in the Crimea, in Armenia, Persia, Asia Minor, Italy, Spain, England, Portugal and the Holy Land, and died here, in the castle of Hauenstein, in the year 1445."

The Seiser Alp is a lofty and undulating plateau 12 miles long and 8 to 9 miles broad; to the ordinary tourist on a hot day it seems almost interminable, and we were not at all

surprised to learn that it is the largest pasture-land in Tyrol.

"Imagine," says Miss Edwards, "an American prairie lifted up bodily upon a plateau from 5500 to 6000 feet in height; imagine a waving sea of deep grass taking the broad flood of the summer sunshine and the floating shadows of the clouds; realise how this upper world of pasture feeds from thirteen to fifteen hundred head of horned cattle; contains three hundred herdsmen's huts and four hundred hay châlets; supports a large summer population of hay-makers and cow-herds; and measures no less than thirty-six English miles in circumference; and then, after all, I doubt if you will have conceived any kind of mental picture that does justice to the original. The air up here is indescribably pure, invigorating and delicious. Given a good road leading up from Seis or Kastelruth, and a fairly good hotel on the top, the Seiser Alp, as a mountain resort, would beat Monte Generoso, Albisbrunn, Seelisburg, and every 'Sommer-

frisch' on this side of Italy out of the field."

This was written many years ago, and there is now a good road leading up from Seis and Kastelruth, while the Seiser Alpenhaus (7025 feet) is occupied as an inn in summer. It can hardly be said, however, that it has as yet fulfilled the predictions concerning it, for it is mainly used as a resting-place on the way to the Schlern.

The Schlern is undoubtedly the great feature of the view from the Seiser Alp.

"The Schlern, to the southwest," writes Mr Gilbert of this particular view, "forms the mighty buttress of the whole; the Ross Zähne, red teeth—well named, both from form and colour—follow, stretching eastward. Then come the gigantic masses of the Plattkofel and the Langkofel; the first, sliced off, as by the malice of a Titan, at a single blow; the second, an array of splintered spires, ashy-tinted or pale yellow. A confusion of cindery peaks and precipices succeed, bearing northward; a green elevation of the Seiser itself hides

more of them from view, as it has already hidden the Oertler and his fellows."

As we have said, however, the principal feature of the Seiser Alp is its apparent endlessness; it needed all the author's powers of encouragement and persuasion to convince the artist that the journey across the Alp would ever come to an end. The flowers are particularly rich in this district; indeed, it is said that no mountain in the Alps has acquired so great a reputation among botanists as the Schlern for the richness of its flora and for the rare plants it produces.

The Schlern House (8040 feet) is another of those excellent Alpine huts that abound in the Dolomite region; it commands a superb panorama, is comfortable, and affords good accommodation.

To the south-west lies the snowy range of the High Alps from the Adamello; on the north-east, the Hohe Tauern, while on the east one of the finest views of the Dolomites to be obtained anywhere—the Langkofel, the Plattkofel, the Rosszähne, the Rosengarten

with Marmolata and Monte Pelmo. The inns (for there are two of them) are on the slope of the highest summit, about twenty minutes from the top. The actual summit (8405 feet) is a confused mass of rocks, quite dazzling in their whiteness; we had seen similar formation on our way down from the Drei Zinnen to Lake Misurina, where the stones were tumbled about in indescribable confusion.

Descents may be made from the Schlern to Atzwang, whence one joins the railway to Botzen, or to Weisslahnbad, in the Tierserthal, but a much more attractive route is the high-level route across the Tierser Alp past the Grasleiten, Vajolet and Kölner Huts down to the Karer See Hotel.

This was the "ten-hour-day" of which the artist had been in such mortal terror throughout all the journey. Whenever there was any little extra exertion to be undertaken, any small commission to be executed which involved a walk, he always pleaded that if *he* performed it he would be quite unfit for the "ten-hour-day" when it came. He had,

however, of late, shown that he possessed unexpected powers of endurance, which convinced the author that there would be no difficulty in accomplishing the dreaded excursion, and it was with no misgivings that the last day's tramp was entered upon.

CHAPTER XI

THE SCHLERN TO THE KARER SEE—THE GRASLEITEN HUT—THE VAJOLET THÜRME—THE KÖLNER HUT—THE KARER SEE—BOTZEN.

PERHAPS it was the anxiety and the thought of what lay before us on the morrow; perhaps it was the rarefied atmosphere or the fact that we had to retire to our beds at a very early hour; for in these mountain huts it is usual for the visitors to go to bed at eight o'clock, or very soon after—indeed, there is in some of them a notice prominently displayed requesting the guests to make as little noise as possible after nine at night and before nine in the morning.

From whatever cause it may have been, however, the fact remained that we did not pass a very restful night, and were both quite ready to get up about half-past five the next

morning. Long before this we had heard some of our fellow-travellers stirring, and by the time we arrived down in the Speise-Saal a goodly company of tourists was already engaged in consuming coffee and making their preparations to start.

Once we have begun an early morning journey there is something peculiarly attractive about it which renders it much more enjoyable than an ordinary tramp commenced at a more reasonable hour. Perhaps it is the feeling of conscious virtue that one has in having got up at an unearthly hour; for this occasion we have shown ourselves superior to ordinary mortals, and we go on our way full of self-satisfaction, which carries us along over stony paths and slippery grass slopes, braced by the fresh morning air and certainly enjoying the effects which are only to be obtained at such hours as these.

Our way led at first over the Schlern Alp and round the base of the red Rotherdspitze. Following the excellent path along the slopes of the Tierser Alp with its scanty herbage,

and striding out vigorously, we had nearly overlooked the turning-place, and would have gone straight on to Campitello had we not recollected ourselves in time and branched off to the right down a steep dip and the zig-zags of the Bärenloch. Going down we had fine views of the north-west precipices of the Grasleitenthurm, and bizarre forms of the Dolomite rocks towered round us, while across the valley we looked up the two Valbuonthäler. Here, at the foot of the Bärenloch, we reached vegetation and joined the path from Blumau, a station on the railway, which follows the Tierserthal and the Tschaminthal, and, turning to the left, we wound in and out between rocky knolls giving ever-changing views till we reached the Grasleiten Hut at 9 o'clock.

Here a halt was made for rest and refreshment, though so far we had not made any very severe exertion, for we had been descending nearly all the way. The Schlern is some 8402 feet above sea-level, while the Grasleiten Hut is not more than 7100 feet. We had, however, accomplished hardly a third of our

day, and felt that we should not stay at the hut too long, notwithstanding its fine position at the foot of the steep Grasleitenthurm and the Grasleitenspitzen. The artist particularly was anxious to get the worst of it over, as he expressed it, so with fierce determination we set out once more.

Our route now lay to the south-east across the Grasleiten-Kessel, and we had to mount over rough shale and loose stones, followed by a steep snow-field, to the Grasleiten Pass, between the Kesselkogel and the Kleiner Valbuonkogel, making frequent halts with the ostensible object of admiring the Molignon and the Molignon Pass—the path to which led up in numerous zig-zags behind us.

On our right were the Grosser and Kleiner Valbuonkogel, and on our left the Seekogel and the west ridge of the Kesselkogel, the highest peak of the whole Rosengarten group.

The Grasleiten Pass was formerly called the " Sella del Principe," after a seventeenth century Bishop of Brixen, who once crossed it to reach the Fassathal.

Here the artist felt that he was at last doing something which was really worthy of his powers; he had hitherto been somewhat scornful of the writer's tales of mountaineering exploits, but after about an hour or so's steady tramp over snow he was inclined to think that there was more in the sport than he had been disposed to allow. At any rate he as well as the writer was quite satisfied to reach the top of the pass, which lies about 8530 feet above sea-level, and to enjoy the striking view. The Vajolet Thürme and the Rosengartenspitze formed the most conspicuous features to the right, while on the left the Scalieretspitze and the Cima di Lausa monopolised one's attention.

A divergence to the left from this point leads to the Antermoja Pass, and thence to the wild Antermojathal with its little lake at the foot of the Fallwand. We had no time, however, to make this excursion, but had to push on to the Vajolet Hut which lies at the foot of the celebrated Vajolet Towers.

These rocks are undoubtedly some of the

most impressive to be found in the whole of the Dolomite region. The towers are six in number, and they rise up sheer in the well-known Dolomite manner, assuming fantastic shapes and looking as if it would be quite impossible for any ordinary mortal not possessed of wings to attain to their summits. Yet every one of them has been ascended, though it is admitted that they are only suitable for the finest rock-climbers.

We were fortunate enough to see some very fine effects while we were taking our ease at the hut. A heavy mist had rolled up from the plains below, and though the view was clear when we arrived, shortly afterwards the curtain descended and blotted out all the peaks from sight.

Now and then, however, the sun would make a great effort and burst through a vulnerable part of the mist for a moment and show us the top of some neighbouring crag standing up like the mast of a sunken vessel rising above the waves.

It was then, however, that the writer

realised that we were actually in the region of the magic Rose Garden of the legendary King Laurin. The opportunity was too good to be lost, and the artist was accordingly regaled with the story of the Goblin King and the valiant Dietrich of Berne. This is how the story goes:

Once upon a time there lived a goblin king named Laurin, who ruled over his followers with a rod of iron, and was a very terrible fellow indeed. He inhabited the very centre of the Schlern; not the most suitable spot, one would have thought, to have chosen, but perhaps the ideas of goblins differ from those of ordinary mortals as to desirable residences.

He saw and loved a beautiful maiden, the sister of one of the retainers of Dietrich of Berne. By some means or other Laurin managed to carry her off to his palace in the heart of the mountains and there he kept her a close prisoner.

The brave Dietrich and his squire—named Dietlieb—were not content to sit down under

this outrage, and determined to rescue the maiden from the clutches of the goblin king.

Accordingly they stormed his stronghold in the Schlern. It is not known by what exact route they penetrated into the dwarf's kingdom; at any rate, after a fierce battle they succeeded in vanquishing the goblin in spite of his magic powers.

Dietrich was desirous of killing the little dwarf out of hand and putting an end to all the bother, but apparently his squire, Dietlieb, was of a more humanitarian nature and persuaded his master to spare the monarch's life.

This ill-advised clemency had disastrous results, for the treacherous goblin, pretending to be overcome with gratitude, offered them food and refreshment after their labours and gave them some drugged wine.

The usual result ensued; when the foolish pair awoke from their heavy slumber it was to find themselves bound and helpless in a dungeon of the wicked king.

Laurin, however, had reckoned without the

young lady, who rejoiced in the name of Simild. She managed to effect their release; another tremendous battle ensued, and once more the dwarfs were defeated. This time the business was fought " to a finish "; the magic roses of King Laurin were ruthlessly trodden under foot and his palace was utterly destroyed.

It is only at sunset that the roses bloom now on the peaks which rise above the spot where once King Laurin's palace stood in all its glory.

By the time this fascinating legend was related the mist had cleared away, and we were able to resume our journey to the Kölner Hut. It was a fine and easy route, past the Gardecia Huts, over scanty pastures, and finally scree, to the Tschagerjoch Pass between the Coronelle and the Tschagerkamm, where there is a good view of the Larsec and Mugoni groups. From the pass we made our way over scree and easy rocks to the Kölner Hut itself. This we reached about four o'clock.

The greater part of our " ten-hour-day " was now accomplished and we were by no

means exhausted. It was with difficulty indeed that the artist could be persuaded to stay even for a moment at the Kölner Hut; he was desirous of going right on to the Karer See Hotel without any break. He was induced, however, to restrain his ardour and swallow some coffee, and we then quietly strolled down by the Tschagerjoch and the Tschagerwald to the Karer See, with fine views of the Latemar in front of us on the way.

The Karer See is one of the most celebrated and fashionable resorts in the Dolomites, and therefore, according to our ideas, one to be avoided. We felt, however, that after the stupendous exertions of the previous day we were entitled to a morning of idleness, and we accordingly decided to take things very easily in the morning and go by the diligence to Botzen in the afternoon.

The situation of the lake is very fine; the green waters with a background of pine woods, while beyond rise the deeply-fissured rocks of the Latemar with their curiously-coloured patches. One cannot but feel, however, that

here we have come once more into the region of the Tourist; we have left our simple, primitive inns and entered Hotel Land. The Karer See Hotel is indeed described as "well adapted for a lengthy stay," than which one can hardly find a more damning testimony.

It was with little regret, therefore, that we entered the diligence about three o'clock and started on the last portion of our journey. The road descends past the Karer See itself to Welschnofen, another "summer resort," in a fine open situation. Further on still, about nine miles from the Karer See, we reach Birchabruck and enter the Eggenthal. Looking back we have a fine view of the Latemar to the right, with the Rothwand and Rosengarten to the left.

At Gummer, close to Birchabruck, there are said to be some good Earth Pillars, but we had no time to visit them. From here till we near Botzen the Eggenthal narrows, hemmed in with steep walls of porphyry, between which the little Karneidbach takes its chattering way. This is the most romantic

part of the valley; we go through tunnels and pass waterfalls, and see, besides, an unromantic dam for electricity works, with the mouth of a big tunnel for a water conduit blasted in the rock on the opposite side of the river.

Presently we come to the picturesque castle of Karneid (1565 feet above sea-level) about which a curious legend is related. According to Mr Churchill, the story runs as follows:

" In a time of plague the family of Lichtenstein (the original owners of the castle) had vowed to make a pilgrimage, with presents of money and other offerings, to our Lady of Weissenstein, should they be preserved from the contagion. Weissenstein is a little place in the porphyry plateau, about seven miles south of Karneid as the crow flies, which possessed at that time a celebrated picture of the Madonna. No one in the Schloss was attacked by the malady, though great numbers in the immediate neighbourhood fell victims. But when the plague had disappeared the Lichtensteins, forgetting their vow, thought they might as well save the cost of the pilgrim-

age. Suddenly the plague returned, and they were all laid low in death. On the same night the castle doors were heard to fly open, and a troop of pale horses, bearing the cloaked figures of the dead, was seen galloping towards Weissenstein. The church door there opening of its own accord, the procession passed in, and the ghastly riders threw themselves down, with a frightful clatter, before the holy picture. In the morning the monks found a heap of blackened corpses upon the floor! In this manner was the breach of faith avenged upon the perjured. It is said that a representation of this scene still exists in the church at Weissenstein."

Still descending, we cross the railway and the River Eisak, and so make our way into Botzen, which is reached about seven o'clock. Hastily depositing our belongings in the hotel we went some little way out of the town in order to see the celebrated view of the Rosengarten, flushed with the evening glow. We were fortunate enough to manage this successfully. The impression left on our minds,

however, was that this view of the Dolomites was not so striking as that seen from Toblach.

At Botzen the mountains are too far away; they certainly look weird and impossible enough, but they are, perhaps, just a shade too incredible. Seen from such a distance one might be tempted to ascribe their grotesque form and bizarre coloration to atmospheric effect, to anything, indeed, rather than to actual fact.

But at Toblach the Dolomites are close upon you; you cannot escape from them. There is no denying them, no chance of quoting the mirage of the desert, the spectre of the Brocken or other similar atmospheric conjuring tricks. The Dolomites as seen from Toblach demand instant acceptance; at Botzen they resolve themselves into the baseless fabric of a vision. One leaves with an image of a distant sky-line of incredible colour, impossible forms, all massed together without method or rule, a veritable wall of fairyland.

Mr Gilbert thus describes his first sight of the Dolomites from Botzen: "You will see,

looking eastward by evening light, spires and towers of Dolomite overtopping everything, and illuminated when all else is dark. It is a sight both beautiful and mysterious. They rise with such lofty independence of the surrounding scenery, are shattered into shapes so strange, cut the sky with such sharpness of outline, and gleam with so unearthly a light, that you are riveted by the spectacle. You cannot but long to explore those fastnesses and touch the bases of those awful walls."

We felt, however, as we stood looking at that wonderful view, as we watched the light die away and leave the peaks cold and grey, that we had chosen the right spot at which to bid farewell to these mysterious peaks, even as we had been fortunate in the place where first we made acquaintance with them.

The next morning a thick mist shrouded all the mountains from sight, and we were glad that this was so, for we were able to leave with the impression of the previous evening undisturbed.

CHAPTER XII

THE PEOPLE OF TYROL—CUSTOMS AND CHARACTERISTICS — ACCOMMODATION, INNS, FOOD, ETC.

WE have already commented on the simple, kindly nature of the people that one meets with in the course of a tour through the Dolomite district, and it may be of some interest to give a slight account of the inhabitants generally and the impression made upon the casual tourist.

So far as we were able to observe the villagers were particularly gentle and courteous; we remarked that we rarely saw any instances of harsh treatment. The children seemed happy and contented, even the poorest of them, and we were almost invariably met with hospitality.

Tyrol may be said to be a religious country; wayside shrines abound, and a curious custom of erecting memorials by the road where some

accident has occurred still persists. One meets constantly with a little shrine adorned with a small picture showing, perhaps, an unfortunate peasant being overwhelmed by a landslip or falling beneath the wheels of a wagon; the art is not of the highest, perhaps, but the sincerity of the artist is beyond all question. The principal figure in the painting is generally immaculately attired in his Sunday best, and it is sometimes a little difficult to reconcile the drawing with one's preconceived ideas of perspective and the like. There is generally a representation above of the Virgin, together with a request to the passer-by to pray for the soul of the unfortunate subject of the picture.

It is, of course, the regular thing for all the villagers, men, women and children, to attend the church on Sunday, and it is undoubtedly an impressive sight to witness the crowds that make their way to service. At Cortina, indeed, the church was so full that numbers had to wait outside and go in when there was room for them.

The churches are for the most part uninteresting from the architectural point of view; they are generally plain whitewashed edifices with either the straight black spire or else the familiar bulbous-shaped tower.

As the district known as the Dolomite region extends into Italy as well as Austria there are naturally different types of people to be found in the various parts. It may, perhaps, be safely said that the southern Tyrolese, on the whole, are not a particularly striking race in appearance; the men are, as a rule, rather undersized, though they seem to be sturdy enough, and the women, though pleasant to look upon as a rule, are not remarkably beautiful. We did see some very fine types in some of the Italian valleys, notably the Auronzo Valley, where the women were tall, strong and muscular, and the men, too, strikingly handsome.

The women work in the fields with the men; indeed, they seem to do so more than the men, and they appear to be able to carry enormously heavy loads with comparative ease.

PEASANT GIRL OF THE AURONZO VALLEY

COSTUME

There is now but little to be seen in the way of extraordinary costume, except on special occasions; in the hotels one may be waited on by damsels dressed in gay garments of every hue, but one knows that this is not the genuine article and that one might just as well be at Earl's Court. The dresses that one sees in the smaller villages are for the most part quite sober in colour, black being the prevailing note; while there is practically nothing to distinguish the men from an ordinary English countryman, with the exception of the felt hat. In the Italian portion of the district the women generally wear handkerchiefs bound round their heads, while in other parts one sees curious little round felt hats with long black ribbons hanging down behind.

It is interesting to note how exceedingly careful the peasants are of their land; at hay-making time they make the utmost of every inch of the ground. One may see them mowing the very poor grass on the steepest hillside under the most difficult conditions and carrying away the smallest bundles of hay to be

treasured up against the winter. In the more prosperous parts, like Cortina and St Ulrich (where there is a flourishing wood-carving industry), the people seem to be fairly well-to-do, but for the most part they appear to find it difficult enough to get a living. Doubtless, as the country is opened up and more visitors are attracted there, they will take advantage of the altered conditions and benefit thereby, but at present they do not seem to have realised to the full their opportunities. They are certainly much more unsophisticated than their Swiss neighbours, and one accordingly has less fear that one is being victimised.

The most popular form of entertainment among the people—at any rate among the men and boys—is a primitive sort of ninepins. This is played anywhere; if there is no proper skittle-alley it is played in the open street, and we often saw a group of men engaged in this pastime, quite regardless of the traffic. It appeared to be a simple game, partaking something of the nature of skittles and something of the character of bowls.

There does not seem to be much evidence that these people are particularly musical; we did, indeed, come across a town band at Cortina, and fell in with itinerant musicians from time to time, but there was no sign that the people as a whole were more than usually musical.

As one is constantly crossing the frontier from Austria into Italy and back again from Italy into Austria, one naturally finds that both German and Italian are spoken by the people on both sides of the frontier. There are but few places where one cannot get along with German; it is only in some of the less-frequented valleys on the Italian side that a knowledge of Italian is necessary to the tourist. Ladin is still spoken in the Gröden valley, but happily one does not need to learn this language in order to obtain the necessaries of life.

We have already commented on the difference between the average Tyrolese inn-keeper and the Swiss hotel-manager. It may be of interest to quote in this connection some remarks of Mr Baillie-Grohman on this point.

He has lived in the country for many years and can speak with authority. "In all worldly affairs," he says, "the inn-keeper of the village plays an important part, for, as a rule, he is the richest as well as the most influential man in the community. Like everyone else he is a peasant pure and simple, but he generally can afford to keep one or two *Knechte*—*i.e.*, male helps; labourers would not be the right word—who live in the house and eat at his table; for, of course, such a thing as a separate table for master and mistress is unknown in a peasant's house.

"The inn-keepers have always played an important *rôle*, and the *Wirthshaus*, which is the centre of the social life of the community, is the scene of the feasts that are given at weddings and christenings, and of the solemn *Todtenmahl*, or "meal of the dead," given after funerals, where the deceased person's kith and kin assemble and gorge. As the inn is the only house large enough for such assemblies, and is the rendezvous every Sunday after morning service for the adult male

population, all business is transacted and the affairs of one's own as well as those of one's neighbour are discussed there, though I will say that the Tyrolese peasants are the people least addicted to back-biting and tittle-tattle that I know. As a natural consequence, mine host is the man who has his finger on the pulse of the community. He knows the ins and outs of every man in the valley financially and socially, and as he has to act as his own " chucker out," and play the village policeman if revellers come to blows on his premises, this burly personage has to be reckoned with in more ways than one."

Of the accommodation to be found in the inns mention has already been made. Some fifty years ago Gilbert and Churchill, in their book on the Dolomites, expressed a fear that the old-fashioned Tyrolese inn would not long survive. They dreaded the advent of the tourist, and the fear was echoed by Miss Edwards, whom we have already quoted on the point. Fortunately these fears have not been realised to the extent that the writers anticipated,

and it is still possible for those who know where to go to meet with the true Tyrolese hospitality and to find the people still unspoilt.

The visitor who looks for elaborate meals and delicate cookery will be undoubtedly disappointed. One cannot have all the primitive charm of an unspoilt country together with the luxuries of modern civilization; we recall the remark of the tourist who said that "he did not mind roughing it, but when it came to one salt-cellar to two people he thought it was going a bit too far!" One must expect to meet with the eternal dishes of *Kalbsfleisch* —how one longs for a change of diet after a week or so of veal!—but the food is as a rule wholesome and palatable, the rooms are clean and the charges are moderate. In the club huts one is always sure at any rate of a plate of excellent soup, while a goulasch can generally be obtained almost anywhere. For liquid refreshment the wine of the country is always available, and in most places beer is also to be had.

CHAPTER XIII

THE VILLAGES OF THE DOLOMITES—HISTORY OF PRIMIERO, CORTINA, CAPRILE

WE have already referred to the fact that the district known as "the Dolomites" is partly in Austria and partly in Italy; the term is geographical rather than political. For this reason it is a little difficult to deal succinctly with the history of the district; moreover, the constant changes that occurred—the rapid transference of towns and districts from one power to another—from one great family to another, render the task more than ordinarily difficult. Several of the Dolomite villages have had a curiously-chequered career; they have been the subject of fierce contention, now ceded to one party, now forcibly taken by a rival house, so that it is a most confusing labour to trace the bewildering vicissitudes of their history.

Primiero, or, as it is more properly called, Fiera di Primiero, is a typical example of the changing fortunes that have befallen some of these villages. In early times it was closely connected with Feltre; it was subject first to the Goths, then to the Lombards, and on the fall of the latter it was granted by the Emperor Conrad, in 1027, to the Bishops of Trent. The discovery of iron mines near by, however, rendered Primiero a valuable possession and led many people to try to gain it for themselves. In 1300 it came, with Feltre, under the rule of the Scaligeri of Verona, who apparently held it for some fifty years. In 1355, in the reign of the Emperor Charles IV., it was made into a separate lordship under one Boniface von Lupi; in 1363 it passed (with Feltre again) into the hands of the Carrara family of Padua.

In 1373 the two places were ceded by the Carraras to the Hapsburgers, but in 1384 the latter gave Feltre back to the Carraras and separated Primiero from that town, reserving its lordship to themselves. The village of

Transacqua, which is now practically a suburb of Primiero, was however still retained by the Republic of Venice, to which it belonged, for some length of time after the rest of the valley had passed into the hands of Austria.

The Archduke Friedrich of Hapsburg devoted considerable attention to the working of the mines of Primiero, and it is recorded that they brought in a revenue of more than 80,000 florins a year.

In 1401 the Hapsburgers granted the district to the Welsperg family—one of whom was their chamberlain—and by them and their descendants it was ruled until 1827. It was this family which owned the Castle of La Pietra—the ruins of which still remain and form such a striking feature of the Val Primiero.

Primiero suffered severely in the war which broke out between the Emperor Maximilian and the Venetians in 1709; a battle was fought at Transacqua, many houses in the valley were destroyed, and Castel la Pietra three times underwent a siege.

After this Primiero ceases to take a prominent part in historical annals; it is more than likely that the extinction of the mines very considerably diminished its importance—at any rate there does not appear to have been that keen competition for its possession that was so manifest when the mines were in good working order.

Primiero has accordingly remained Tyrolese, though from its position one might have expected that it would have become Italian.

Caprile, on the other hand, which is much further to the north, has remained Italian. Its ancient name was Pagus Gabrielis. It always formed part of the Agordo district, which belonged to the Bishop of Belluno; in time, however, the episcopal power waned, and he was eventually replaced by a bewildering succession of masters until, in 1360, the Carrara family of Padua assumed possession of the district. Then the usual kaleidoscopic fate befel Caprile and Agordo; in 1384 they passed into the power of the house of Hapsburg; in 1386 the Carraras again took pos-

session; while in 1388 these again lost them to the Visconti of Milan, the famous Gian Galeazzo, of whom Sismondi gives such a vivid picture. "False and pitiless," he says, "he joined to immeasurable ambition a genius for enterprise, and to immovable constancy a personal timidity which he did not endeavour to conceal. The least unexpected motion near him threw him into a paroxysm of nervous terror. No prince employed so many soldiers to guard his palace or took such multiplied precautions of distrust. He seemed to acknowledge himself the enemy of the whole world. But the vices of tyranny had not weakened his ability. He employed his immense wealth without prodigality; his finances were always flourishing; his cities well garrisoned and victualled; his army well paid; all the captains of adventure scattered throughout Italy received pensions from him, and were ready to return to his service whenever called upon. He encouraged the warriors of the new Italian school; he well knew how to distinguish, reward and win their attachment." In 1402,

however, Gian Galeazzo Visconti was carried off by pestilence, and Venice, availing herself of her opportunity, began to extend her frontiers. In 1404 she took possession of Agordo, with Caprile, at the same time as Belluno and Feltre.

The little village of Rocca, between Caprile and Sottoguda, has a much more curious history. "This tiny place," says Miss Edwards, "known in the Middle Ages as Rocca di Pietore, or Roccabruna, if never in the strict sense of the word a Republic, was at all events self-governed; owing only a nominal allegiance to the Archdeacon of Capo d'Istria, and enjoying a special immunity from tax, impost or personal service ('imposta o colta o fagioni personali'). This interesting little community, consisting of forty-five families, the men of which were nearly all armourers, was constrained in 1389 to acknowledge the suzerainty of the Visconti, who placed it under the jurisdiction of the Bellunese. Not even so, however, would Rocca resign its cherished liberties, but stipulated that all the articles

of its ancient statute should be observed inviolate. The MS. original of this remarkable document, drawn out in sixty-six clauses and registered at Belluno in the year 1418, is now in the possession of Signora Pezzé at Caprile. When, by-and-by, the Visconti attempted to levy a tax upon their steel-work the men of Rocca rebelled; and later still, in 1659, being then subject to the Venetians, and jealous as ever of their privileges, they despatched an ambassador to the Senate, reminding that august body how, 'being situated on the frontier and exposed to the attacks of enemies beyond the border, the people of Rocca had at all times testified to their patriotism with their blood, and preserved intact those privileges which were dearer to them than the pupils of their eyes.'"

The history of Cortina and the Ampezzo valley is quite different again. The house of Hapsburg in 1500 received, as part of their inheritance of the county of Görz, the Pusterthal and Toblach, with the valley which runs up south to the Ampezzo Pass. From 1335

the other side of the pass belonged to Aquileia; in 1420 the all-conquering Republic of Venice seized it, but in 1509 Maximilian of Hapsburg won it from the Venetians, though it was not definitely acquired until 1517.

We see, therefore, that the history of the villages in the Dolomite region by no means corresponds with their geographical situation; it does not necessarily follow that because a village is south of the range of mountains that therefore it is in Italy; on the contrary, the frontier to-day pursues an apparently quite irresponsible course, and though Caprile is now in Italy, Primiero and Cortina are both Austrian. The same curious capriciousness seems to have dealt with the mountains themselves; the Rosengarten group, the Langkofel group and the other peaks of the Grödnerthal were formerly included in the territory of the Bishops of Trent and are wholly Tyrolese; the Cimon della Pala and the Pala di San Martino are wholly Austrian, but the Sass Maor, the Cima di Vezzana and the Marmolata are half in Tyrol and half in Italy. Monte

Civetta and Monte Pelmo are wholly Italian, Antelao is in Italy, while Tofana is in Austria. Sorapiss again, with Monte Cristallo and the Drei Zinnen, are half in one country and half in the other. It follows that, in traversing the Dolomite region, the traveller is constantly crossing the frontier, and it is at times a little perplexing to know in which country one actually is; there is no abrupt change in the language, for all along the border the people may be said to be almost bi-lingual and speak both Italian and German with equal fluency.

Botzen is one of the oldest towns in Tyrol and stands at the junction of two important routes, the Brenner and the Vintschgau roads. It is built practically on the site of the Roman Pons Drusi and was long ago a place of considerable commercial importance. It seems, moreover, to have shared the fate of most of the towns and villages of the district in the Middle Ages—to have been fought for and ceded and made a bone of contention between ambitious princes and bishops. After the Roman period it became the seat of a Bavarian

Margrave, under the Dukes of Bavaria. Trent was then the northernmost town of the Lombards, and a continual warfare was waged between the Bavarians and the Lombards, with varying success; more than once the Lombards succeeded in plundering Botzen.

In an account of the life of the Minnesinger, Oswald von Wolkenstein, we learn that in the year 1410 Tyrol was in a disturbed state. (We are inclined to regard this, however, as anything but abnormal in those days.) "The nobility of the Etschthal had united together to protect their ancient privileges against the encroachments of Frederick 'of the empty pocket,' Count of Tyrol. Hitherto they had been considered his peers, and had held their possessions immediately from the Emperor, except where some special feudal tie required it to be otherwise. These encroachments gave rise to continual disputes, in which each endeavoured to enforce his rights as he best could. Oswald took the side of the nobility and laboured zealously to get Tyrol out of the hands of the innovating government of the

Austrian Archduke, whose deadly hatred he had incurred. The ill-success of this prince at the Council of Constance appeared to the barons of the Etsch to afford a suitable opportunity for completing their designs; but not being properly supported by the Emperor Sigismund, and unprepared for Frederick's unexpected courage and resources under the most difficult circumstances, they were at last, about the year 1426, compelled to acknowledge his superiority and abandon their pretension to hold their fiefs immediately of the Empire."

CHAPTER XIV

THE DOLOMITEN-STRASSE—SOME TOURS IN THE DOLOMITES

OF recent years great efforts have been made to develop the region of the Dolomites, to render it more accessible to the tourist, and to improve the accommodation; new hotels have sprung up as if by magic, services of automobiles and diligences now ply where formerly it was only possible to hire a private carriage, and above all, fine new roads have been made, connecting the principal villages of the district and practically traversing the whole country.

The principal one of these—known as the Dolomiten-strasse—has only been open for general use in its whole length within the last two or three years. It is a triumph of engineering skill—crossing two passes, the Pordoijoch and the Falzaregojoch, and affords magnificent views of the country throughout.

A DELIGHTFUL GUIDE

An account of the new high-roads of the Dolomites was issued by the Austrian State railway in 1907, in connection with a most excellent map of the district; the text was given both in German and English, and some of the author's translated efforts are quite delightful and deserve to be rescued from oblivion. He begins with a general description of the Dolomites: "These mountains," he says, "are unique in their way, for the richness of the geological wonders they hide, unique for the brightness of their sparklingly-coloured rocks, for the unexampled picturesque beauty of their forms, the luxuriancy and extension of their high-meadows, for the accessibility of even their remotest valleys, as well as for the frightening wildness of their ridges and perpendicular precipices."

This is a good beginning, but the writer has hardly yet warmed to his subject. "If we compare the Dolomites," he goes on, "with the neighboured Central Alps, we will find that they have still different prerogatives besides the peculiar charm of their landscape,

though wanting the majestical height and the cover of eternal snow of their neighbours. First of all the valleys of the Dolomites are by far warmer, and more open to the sun, than those of the Central Alps, wherefore the season for the centres of the Dolomites is a longer one."

It is perhaps not quite clear as to the exact meaning the writer attaches to the word "centres," but we may pass over such a trivial point. "Then the mountains of the Dolomites are consisting of totally isolated ridges or stems," continues our author, now getting well into his stride, "which mount majestically from the endless green of softly ondulated alm-grounds, like white domes or pyramids. This peculiarity is a source of inexhaustible richness and variety of surprising sceneries, and effects of light and shadow, as well as it makes it possible to wander without any trouble over the soft and flower-covered meadows and bows that separate each valley from the following."

The most-frequented route is that which

starts at Toblach, runs south along the Höhlensteinerthal to Schluderbach, thence in a westerly direction to Peutelstein, and again south to Cortina. From here the new road begins; it crosses the Falzarego Pass and descends to Andraz, then pursues a directly westward course to Araba, goes over the Pordoi Pass to Canazei, whence it turns southwards and traverses the Fassathal as far as Vigo di Fassa, where it again takes a westerly direction over the Karer Pass to the Karer See, and thence to Botzen. From Vigo, moreover, a road runs south to Predazzo and thence south-east to Paneveggio, over the Rolle Pass to San Martino and Primiero; while from Araba another road branches off in a northerly direction to St Leonhard and St Martin in the Gaderthal, running up to St Lorenzen in the Pusterthal. As the writer of the account referred to above remarks, "Both side-roads are of second order, and prohibited for automobiles, but can be used by carriages and bicycles." He goes on to say, however—and no one will dispute the truth of this observation,

that " Who walks on foot, will think his way through the Dolomites a very pleasant one, and find an excellent life and board in the numerous villages and shelter-houses. In nearly all the principal places elegant first-class hotels are already existing, and besides these also simple pensions and inns, which are excellently managed. In spite of the considerable number of lodgings there is frequently a want of them during the season, called forth by the great frequence of strangers, so that it is advisable to look for a lodging in good time."

A glance at the map will show that the new road runs right through the centre of the district, and, as our author observes, " with it the region of the Dolomites seems to be opened in its chief point."

Let us, however, accompany this engaging guide along the route in a little more detail; we leave Toblach and make our way along the Höhlenstein Valley past Landro to Schluderbach. " Near Schluderbach," he says, " a rather steepy, but well-kept street

is leading on the south-east into the forests of the Popenatal, and from there over the Col Sant' Angelo within two hours to the wonderful Misurina See." We are conducted from Cortina over the Falzarego Pass with comparatively little exuberance of language but when we arrive at the Pordoijoch we are told that "downwards from the Pordoi Pass the street is offering one of the most magnificent and picturesque views one can enjoy within the whole region of the Alps. With a continual look on the mighty giants of the Dolomites, and the charming grounds of their valleys, one comes down to Canazei"—and a prosaic catalogue of hotels and inns.

Of the branch that turns off at Vigo di Fassa he remarks, "The street mounts on the western side to the San Lugano Pass, passes in lowering the inn Kaltenbrunn, and offers in its numberless turns and serpentines a splendid look upon the country of the Etsch."

As is only to be expected, the neighbourhood of San Martino and Primiero moves our author to a fine flight of language. "The great

street itself," he says, "ascends the Rolle Pass, from where one enjoys an incomparable look on the Cimon della Pala. Then the street lowers down, describing numberless turns, and enters the 'Paradise of the Dolomites,' San Martino di Castrozza. The Rosetta, which is not difficult to ascend, offers a picturesque and instructive view. In the valley the carriage-road is leading along the Cismone down into the south, and reaches Fiera di Primiero, that lies in the middle of a luxuriant southern vegetation, and surmounted by the still magnificent ridges of the last of the Pala-Dolomites."

The traveller who enters the Dolomite country from Venice does so by way of Belluno, to which point the railway runs; from here he may traverse an excellent carriage-road past Longarone and Perarolo to Tai di Cadore, where the road divides, one branch going west and the other east. By the latter he may reach Pieve di Cadore and thence traverse the Auronzo Valley to the Misurina See. The western road from Tai leads past Valle, Venas, Borea and San Vito to Cortina.

Another road from Belluno runs in a more westerly direction to Mas, whence it strikes north to Agordo; from here "the street is mounting over Cencenighe and passes the splendid lake of Alleghe, till it reaches Caprile."

The district may also be entered from Trent, by the Val Sugana; a railway runs from Trent along this valley as far as Tezze, and from here the road goes on to Bassano, meeting, near Primolano, a road to the north which ascends to Feltre and Primiero.

It will be seen, therefore, that the country is well supplied with roads, which enable the traveller to penetrate into the heart of the district with very little trouble; it may be added that all these roads are excellent and are kept in good repair. There are, moreover, many footpaths and passes which can only be traversed by the pedestrian, but these, again, are almost without exception devoid of any difficulty.

It may, perhaps, be of some interest and utility to intending visitors to the district to sketch out a few plans whereby some idea

of the country may be gained in a comparatively short space of time. We will assume in the first place that the traveller from England makes his way to Innsbruck and thence takes the train over the Brenner Pass to Toblach. From there he may proceed as follows:

First day.—Toblach to Landro, about 1½ hours by diligence or automobile. From here may be obtained one of the best views of Monte Cristallo and Piz Popena with the Dürren See.

Second day.—Landro to the Dreizinnen Hut. From Landro (4615 feet above sea-level) to the Rimbianco Alp (6035 feet) is a climb of about 1¾ hours. Thence via the Toblinger Riedl (7857 feet), to the Club Hut (7897 feet), making a climb of 2 hours in all.

Third day.—Dreizinnen Hut to Tre Croci. An easy ascent to Forcella Lavaredo (8040 feet) occupies 1 hour; thence one may descend to the Rimbianco Alp in 1½ hours, and again to the Misurina See (5760 feet) in 1 hour. From here a good

road (either for carriages or walking) leads up to Tre Croci (5930 feet) in 1½ hours.

Fourth day.—Tre Croci to Auronzo. We descend from Tre Croci to Misurina in about 1 hour and then walk down the length of the Auronzo Valley to Auronzo in about 3½ hours.

Fifth day.—Auronzo to Pieve di Cadore. Diligence in about 3 hours.

Sixth day.—Pieve di Cadore to Cortina. Diligence in about 4 hours.

Seventh day.—Cortina. Ascent of Belvedere (1 hour).

Eighth day.—Cortina to Caprile. From Cortina over the Nuvolau saddle (7875 feet) to the Sachsendank Hut (8460 feet) is an easy climb of 4½ hours; we pass the Cinque Torri on the way. Thence one may descend via Andraz (2 hours) or Colle Santa Lucia (2½ hours) to Caprile—1½ hours further on.

Ninth day.—Caprile to Agordo. A valley walk of 12 miles.

Tenth day.—Agordo to Primiero. From

Agordo (2000 feet above sea-level) one takes a good bridle-path to Frassene (3550 feet) in 2 hours; from there to Gosaldo in 1½ hours; over the Cereda Pass (4520 feet) another 2 hours, and down to Primiero in 1½ hours more.

Eleventh day.—Primiero. An excursion to the Val di Canali will well repay the traveller.

Twelfth day.—Primiero to San Martino. Diligence for about 3 hours.

Thirteenth day.—San Martino to Campitello. One may go by diligence or automobile over the Rolle Pass to Paneveggio. There one may leave the high-road and go over the Lusia Pass—an ascent of some 1700 feet—and down the other side to Moena in about 4 hours. An easy walk along the Fassathal leads to Campitello in about 2½ to 3 hours.

Fourteenth day.—Campitello. An interesting excursion may be made to the Contrin Hut or to the Fedaja Pass (about 4 hours), affording fine views of the Marmolata.

Fifteenth day.—Campitello to St Ulrich. From

Campitello (4730 feet) a walk of 2 hours leads to the Sella Hut—on the Sella Pass (7275 feet); from here one may either descend to Plan and thence to St Ulrich, or—a much more interesting route—ascend the Langkofeljoch (8800 feet)—a steep but easy climb—descend to the Langkofel Hut, and thence to St Christina or St Ulrich.

Sixteenth day.—St Ulrich.

Seventeenth day.—St Ulrich to Schlern. From St Ulrich to Kastelruth is an easy walk of 3 hours; thence to Seis and Bad Ratzes is a farther five miles; and from there to the Schlern Hut (8402 feet) is a climb of 4 to 4½ hours.

Eighteenth day.—Schlern to the Karer See Hotel. This is described as one of the finest high-level walks in the district. From the Schlern Hut via the Tierser Alp to the Grasleiten Hut occupies 3 hours; from there to the Vajolet Hut another 2¼ hours; and thence via the Kölner Hut to the Karer See Hotel, 3 hours more.

Nineteenth day.—Karer See to Botzen. Diligence in about 4 hours.

From Botzen one may take the train back to Innsbruck and so return.

For a shorter tour—say a fortnight—the following plan might be recommended. We assume, as before, that the tourist starts from Innsbruck; thence he may take the train to Niederdorf—the station before Toblach.

First day.—Niederdorf to Schluderbach. An easy and fine route along the Pragserthal and across the Platzwiese, 4 hours.

Second day.—Schluderbach to Cortina. From Schluderbach to Misurina (1¾ hours)—if preferred, the diligence may be taken—thence to Tre Croci (2 hours), descending in 1½ hours to Cortina.

Third day.—Cortina.

Fourth day.—Cortina to Caprile over the Gian Pass. This is an easy and attractive excursion occupying about 6½ hours.

Fifth day.—Caprile to Agordo. A valley walk of 12 miles.

LOOKING BACK TOWARDS AGORDO

Sixth day.—Agordo to Primiero. Same as in first tour.

Seventh day.—Primiero.

Eighth day.—Primiero to San Martino. A good path up the Val di Canali leads into the Val Pravitale to the Pravitale Hut (7665 feet) in 4 to 4½ hours. From here an easy marked route leads over the Fradusta or Pravitale Pass (7365 feet) to the Rosetta Hut and San Martino in 5 hours

Ninth day.—San Martino to Predazzo. Over the Rolle Pass via Paneveggio. A diligence runs daily in about 4 hours, and an automobile in about 2½ hours.

Tenth day.—Predazzo to Campitello. A valley walk of 15 miles; may be done by diligence if preferred.

Eleventh day.—Campitello to Plan. Over the Sellajoch (7275 feet), 2 hours. Ascent of the Rodella (8155 feet), ¾ hour; descending to Plan (5290 feet) in a further 2½ hours.

Twelfth day.—Plan to St Leonhard. Over the

Grödnerjoch (7010 feet), via Colfosco, about 3 to 3½ hours, thence to St Leonhard, another 6½ miles.

Thirteenth day.—St Leonhard to St Lorenzen. Diligence runs daily in about 3 hours. At St Lorenzen we rejoin the railway and may take the train back to Innsbruck.

For those who are able to make a longer stay in the district, Toblach, Schluderbach, Cortina, Caprile, Primiero, San Martino, Campitello, St Ulrich, St Leonhard and the Karer See may be recommended. San Martino is the best centre for climbers in the southern portion of the district.

CHAPTER XV

CLIMBING IN THE DOLOMITES (I)

THERE are fashions in mountaineering even as in millinery; one particular peak will enjoy a great vogue for a season or two and no ambitious climber will rest content until he has added its scalp to his collection; after a while a new star appears on the horizon, and all those who desire to do the "proper thing" hasten to pay their devotions, while the erstwhile object of their worship remains neglected and forgotten save by the faithful few who care nothing for the vagaries of fashion and climb simply for the love of climbing—that is to say, the true mountaineers.

Mont Blanc, the Matterhorn, Monte Rosa, the Jungfrau and the Dent Blanche have all in their turn been the victims of this "popularity," but for a long time the Dolomite mountains were spared the indignity of becoming fashion-

able; indeed, compared with other districts of the Alps they were curiously neglected by the majority of English climbers.

Of recent years, however, they have become better known, though even to-day they are regarded with a measure of pitying condescension by a certain school of climbers, who speak of " reserving them for their old age " and " declining upon the Dolomites when they can no longer undertake the fatigues of a genuine Swiss climb."

One of the reasons for this neglect has been the fact that, in the Dolomites, one does not meet with extensive snow-fields, glaciers, and the opportunity for ice-work which the Swiss Alps offer; in the Dolomites the climbing is almost entirely rock-climbing, and it is only within recent years that rock-climbing has attracted much attention. A school of climbers has arisen, however, whose devotees look with scorn upon ice and snow, upon *bergschrunds* and *névé*, and who pin their faith to hand-holds, *gensdarme*, chimneys, *mauvais pas* and similar terrors. Rock-climbing, pure and

simple, may be said to have become fashionable to a certain extent, and the Fünffingerspitze and the Kleine Zinne have been added to the list of " fashionable peaks."

One of the advantages of the Dolomite district from the rock-climber's point of view is that it affords climbs of every degree of difficulty, from the ascent which is described as " moderately easy; guide unnecessary," to that which is set down as " very difficult—for experts with steady heads."

Another advantage is, that for the most part the climbs are short in comparison with the Swiss peaks; it is frequently possible to ascend two or even three summits in one day, and in many cases these may be reached from the valleys below without the necessity of sleeping in one of the Alpine Club huts, though these are plentiful and, nowadays, quite luxurious in the accommodation they afford.

There is yet a third advantage which will appeal to the climber of limited means, namely, the expense; the tariff for a first-class peak in the Dolomites is very considerably less than

it is for a Swiss mountain, so that even the most incompetent of novices may be hauled up two or even three Dolomite peaks for the same amount that it would cost him to be dragged up one of the better known Swiss Alps.

It was in 1870 that Leslie Stephen's brilliant paper on "The Peaks of Primiero" appeared in the *Alpine Journal*, but it was not until 1894 that any work appeared in English dealing with the Dolomites as a whole from the mountaineer's point of view. In that year Mr Sanger Davies's book, *Dolomite Strongholds*, was published, and in 1899 was issued *The Climbs of Norman-Neruda* (most of which dealt with this particular district), to which was attached a melancholy interest in that the author had lost his life on the Fünffingerspitze the summer before (1898).

A translation of Signor Leone Sinigaglia's work on *Climbing Reminiscences in the Dolomites* had meanwhile appeared in 1896. The climbing literature of the Dolomites has, however, so far as the English language is concerned,

been singularly meagre; various papers and notes have been published from time to time in the *Alpine Journal* by Messrs C. C. Tucker, L. Norman-Neruda, A. G. S. Raynor, J. S. Phillimore, F. F. Tuckett, E. E. Whitwell, Edward A. Broome and others, but there has been nothing like the same attention that has been devoted to these peaks by the Germans and Austrians.

The classic work on the district—Gilbert and Churchill's *Dolomite Mountains*, published in 1864—dealt very little with the actual climbs of the region; indeed, at that time a good many of the peaks had not been ascended and were thought to be inaccessible. The authors state, moreover, that " the Dolomites are not particularly adapted for climbers—as an experienced Alpine Club man, who made the trial, confessed, expressing much disgust at their evil qualities in this respect." Miss Edwards's *Untrodden Peaks and Unfrequented Valleys*, issued a few years later, is an altogether charming book, but can hardly be classed as climbing literature. Mr J. Ball's

Guide to the Eastern Alps, published in 1879, was the first work which dealt with the climbing aspect at all adequately.

Competent authorities have maintained that the Dolomites afford the finest climbing in Europe. This is an opinion that depends upon the point of view; perhaps if we say the finest "rock" climbing, and take into consideration the number of peaks compressed into so small an area, few of those who have had experience in this and other districts will be inclined seriously to challenge the statement. It would be easy to object that the highest of the Dolomites, the Marmolata, is only a beggarly 11,000 feet, whilst the main chains of the Alps have over two hundred summits which range from 12,000 feet to 15,700 feet. It would be easy to say that the Dolomite glaciers are insignificant compared with those of Switzerland and North Tyrol, and it would not be difficult to single out certain climbs in more-frequented Alpine centres which equal in interest any of the Dolomite climbs. But, district for district, the Dolomites can hold

their own, and should particularly appeal to lovers of the Chamounix aiguilles and the rock climbs of the British Isles. Their walls and chimneys, pinnacles and ridges, offer endless joys to the mountaineer, and if the scree, "schutt" and "geröll" are occasionally trying to the temper they are at least no worse than the interminable moraines of other mountain ranges.

Let us admit that the Alps are wide and that tastes have a habit of differing; nevertheless, the admirers of one district need not be the detractors of another, and the climber who tries the Dolomites for the first time will at least add to his experience and interest even if he continues to prefer his old haunts.

The exploration of the High Alps may be said to have begun with the ascent of Mont Blanc by Jacques Balmat and Dr Paccard in 1786, and to have continued intermittently to the present day. The years 1840 to 1865 were years of great activity, and in this period the real conquest of the High Alps took place. The Dolomites, however, did not then attract

much attention, doubtless owing to their inferior heights, but the Pelmo was ascended in 1857, Antelao and Tofana in 1863, Marmolata and Sorapiss in 1864, and Cristallo in 1865. The next twenty-five years saw the completion of the conquest of the Dolomites with the exception of a few exceedingly difficult needles, like the Stabelerthurm and the Delagothurm, reserved for more recent years.

Of those engaged in the conquest the most celebrated was Paul Grohmann, who, between the years 1863 and 1869, made the first ascents of Tofana, Antelao, Sorapiss, Marmolata, Cristallo, Grosse Zinne, Dreischusterspitze and Langkofelspitze. C. C. Tucker, with various companions, between the years 1872 and 1879, made the first ascents of the Kesselkogel, Cima di Vezzana, Rosengartenspitze, Sass Maor and Cima di Canali. Gottfried Merzbacher, between 1879 and 1887, made the first ascents of Vernel, Sasso Vernale and the Haupt Vajolet Thurm. Other pioneers were John Ball, Leslie Stephen, E. R. Whitwell, Leone Sinigaglia, J. S. Phillimore, A. G. S. Raynor,

TYPICAL DOLOMITE ROCKS

Robert Hans Schmitt, Norman-Neruda, Baron Eötvös, G. Winkler, etc., whose first ascents will be found in the notes on the various groups which follow.

Of guides, the most renowned was Michel Innerkofler of Sexten, who made alone the first ascent of the Grohmannspitze, the Innerkoflerthurm and the Elferkofel, and, in company with Johann Innerkofler, the first ascent of the Kleine Zinne and the Zwölferkofel, besides leading in other first ascents and new routes. He was killed in 1888, at the age of forty, whilst descending Cristallo to Schluderbach, through the breaking of a snow-bridge on the glacier.

The character of the climbing has already been referred to. At first sight the peaks look absolutely unclimbable; bare walls, thin pinnacles, smooth-looking towers and vertical precipices seem to forbid all access. The experienced cragsman knows, however, that he has only to come closer and examine in detail to find an apparently unbroken front resolve itself into the usual chimneys and

ledges, though perhaps the former are steeper and the latter less commodious than he would like for his first day, whilst yet stiff with his long railway journey from England. He knows too that, provided the rock is good, the hand-holds not too far apart for his length of reach, and the climber well provided with "schwindelfreiheit," he need care little for steepness. He will soon discover that he can sort out the ascents into "rough scrambles," "climbs," "difficult climbs" and "almost impossible climbs," just as in any other district, and can suit his efforts to his prowess or his ambition.

In point of fact the peaks are extremely disintegrated, and to this fact is due their aspect of ruined masonry. Usually the rock is hard enough, but weathering induces a process of decay, and the climber must beware of loose stones and treacherous hand-holds. A feature of the Dolomites is the series of long horizontal terraces which sometimes run more or less continuously across the whole face of a mountain. The more difficult face climbs are exposed and nerve-shattering, but usually

the terraces are reached by a succession of chimneys, though some of these are at best but rudimentary, whilst the open rock wrinkles itself into innumerable small foot-holds and hand-holds by which the climber ascends as on a ladder, but more or less spread-eagle-wise. Austrian and German climbers, together with such English climbers as do not scorn what they are pleased to call artificial aids, do the actual climbing in "kletterschuhe" or "scarpetti," leaving their nailed boots at the foot of the rocks, or, if they intend a traverse, sending them round to the other side of the mountain.

Glaciers in the Dolomites are few, the only ones of any importance being those of the Marmolata and Cristallo, though there are baby glaciers and infant snow-fields on some of the Cortina peaks, and ice couloirs are met with on some of the original routes which are now abandoned.

In the Dolomites, as elsewhere, the climber can be a "centrist" or a "wanderer," that is to say, he can choose a centre for his season's work, settle down there and explore as many

of the peaks in the immediate neighbourhood as he has time and inclination for, or he can wander from group to group, crossing passes and traversing peaks so as to include in the same season a visit to several districts. Each method has its ardent advocates and each has its advantages. The centrist enjoys his comfortable hotel and his freedom from carrying the reviled rücksack, besides getting all the sport that he wants and a thorough acquaintance with his selected district. The wanderer has the advantage of variety, and probably gets a better general knowledge of the mountain world. Suitable places for the centrist are Cortina, St Ulrich, the Karer See and San Martino, and he need not be in any fear of insufficiency of climbs, for several groups number over fifty peaks, not to speak of alternative routes. The wanderer will enter the Dolomites at whatever point suits him best, and will make use of the Alpine ways and the excellent huts provided by the various sections of the "Deutscher und Oesterreichischer Alpen Verein."

GUIDELESS CLIMBING

To a climbing and touring party of moderate ambition wishing to obtain a good preliminary notion of the whole region the following tour and climbs may be recommended:

Innichen, Sexten (Dreischusterspitze), Drei Zinnen Hut (Grosse Zinne), Tre Croci (Cristallo), Cortina (Sorapiss or Pelmo), over the Nuvolau (Cinque Torri), Grödnerjoch, Val Culea, Pisciadusee Hut, Bamberger Hut (Boëspitze), Pordoischarte, Pordoijoch, Bindelsteig, Fedaja Haus (Marmolata), Marmolatascharte, Contrin Haus, Pellegrino Pass, Forno, Pravitale Hut (Cima di Fradusta or Cima di Ball), Primiero, San Martino (Cima di Vezzana), Rolle Pass, Lusia Pass, Karer Pass, Kölner Hut, Tschagerjoch Pass, Vajolet Hut (Rosengartenspitze or Kesselkogel), Grasleiten Hut, St Ulrich (Langkofel or Innerkoflerthurm), St Christina (Sass Rigais or Fermedathurm), Gaderthal, St Lorenzen or Bruneck.

On the subject of guideless climbing, whether in the Dolomites or elsewhere, nothing new can be said, and all that is old resolves itself into the disparity or equality of the

difficulty of the climb on the one hand and the skill of the climber on the other. Thus, to one who condemned a brilliant rock climb of Mummery's as foolhardy on account of its difficulties, the reply was made that "to Mummery they were not difficulties." But it may be said in general that whilst there are plenty of Dolomite climbs suitable for guideless parties of experience, the biggest expeditions are emphatically *not*. To the intrinsic stiffness of these expeditions must be added the difficulty of recognizing the line of ascent even after a correct beginning has been made, and the consequent likelihood of following a wrong line and landing oneself in a position where advance and retreat are equally hazardous. The great majority of accidents in the Dolomites have happened to guideless parties.

The best general map of the district is the "Uebersichtskarte der Dolomiten," published in two sheets by G. Freytag and Berndt of Vienna, price Kr. 4.70 each, but obtainable by members of the D.O.A.V., through their sec-

tion, half price. Special maps will be mentioned in dealing with the various groups.

Those conversant with German may supply themselves with the third volume of *Der Hochtourist,* by Purtscheller and Hess, which gives details of all the climbs. It forms one of the series of Meyer's Reisebücher, and is published at 4 marks by the Bibliographisches Institut, Leipsig and Vienna. The *Kalendar des D.O.A.V.,* published annually, contains useful information concerning huts, guides, etc.

A brief glossary of some foreign Alpine terms used in the following pages or in the maps referred to may be found useful:

Cadino, German kar	Kamm, ridge	Scharte, pass
Camino, chimney	Kar, wide, flattish gully	Schlucht, gully
Cima, peak	Kofel, summit	Schutt, débris
Colle, pass	Malga, alp	Spitze, peak
Forcella, pass	Mulde, hollow	Steig, path
Geröll, scree	Rinne, chimney	Stock, massif
Gipfel, peak	Riss, crack	Thurm, tower
Grat, arête	Sasso, rock	Torre, tower
Joch, pass	Sattel, saddle	Vedretta, glacier
Kamin, chimney		Wand, face

As the opening chapter has already indicated the groups into which the Dolomites are divided, it will be convenient to adhere to that

classification and to deal with the various sections in order.

Cortina Group

Even at the present day, when touring and climbing are so much more popular than in previous times, Dolomites means Cortina *et praeterea nihil* to most English climbers, and even the word Tyrol brings the same impression to their minds. Why this should be so it is difficult to say, but it may be because Cortina lies towards the centre of the Dolomite region, on the great international high-road from Innsbruck to Venice, and because in its neighbourhood are the highest summits of the Dolomites. But the highest peaks and most imposing masses do not necessarily afford the greatest climbing interest, and the Cortina peaks, which once held the field, have now given way in renown to such comparatively insignificant pinnacles as the Kleine Zinne and the Vajolet Thürme.

The group is distinguished from other Dolomite groups in that it consists of several

huge mountain massifs, separated from each other by broad saddles and valleys, so that each block displays itself as an independent and characteristic cluster of peaks. It is thus altogether different from the Rosengarten range, which is a fairly continuous chain, and from the Sella and other groups, which consist for the most part of single massifs with dependent peaks springing from a common stock. Big and little, the summits number over fifty, and with the exception of the Croda da Lago, which is of more than ordinary difficulty, most of them are practicable by the ordinary routes for rock-climbers of good average skill. They are scattered on both sides of the Ampezzo Thal and the road to Pieve di Cadore, the best centre being Cortina itself, easily reached from the railway at Toblach in the Pusterthal by omnibus in 4 hours, though for some ascents Schluderbach, San Vito and Auronzo are more convenient.

The Club huts of the district are the Sachsendank Hut—inn in summer—on the summit of the Nuvolau, 4½ hours from Cor-

tina; the Monte Pian Hut (refreshments), 3 hours from Schluderbach; Tofana Hut (provisioned), on the Forcella di Fontana Negra, 4½ hours from Cortina; Pfalzgau Hut (for Sorapiss—inn in summer), near the Sorapiss Lake, 4 hours from Cortina, or 2 hours from Tre Croci; Rifugio di San Marco (also for Sorapiss—inn in summer), 2½ hours from San Vito; Rifugio di Venezia (for Pelmo—inn in summer), 3½ hours from San Vito; Rifugio Tiziano (for Marmarole) 3 hours from Stabiziane in the Val d'Ansiei; Rifugio Barbaria (for Croda da Lago—inn in summer), near the little Lago da Lago, 3 hours from Cortina. There are convenient inns at Pocol on the Falzarego Road, Tre Croci and Stabiziane in the Val d'Ansiei. A map of the Ampezzo and Sexten Dolomites, in two sheets, by the K.K. Militär-Geograph Institut, is published by R. Lechner, Graben, Vienna, and the relative sections of the Oesterreichische Spezialkarte are Zone 19, Kol. 6 and Zone 20, Kol. 6, also obtainable from the same firm.

The principal ascents are the following:

MONTE CRISTALLO

MONTE CRISTALLO (10,495 feet).—This is the most popular peak in the whole of the Dolomites, and the ordinary route from Tre Croci (5930 feet) presents great attractions of variety and picturesqueness of mountain scenery, together with interesting climbing of no great difficulty. It is a short five hours from Tre Croci, or it can be taken direct from Cortina.

From the hotel at Tre Croci the route leads by the steep foot-path which mounts zig-zag over stones and scree in the direction of the prominent gorge between the walls of Cristallo to the west and Popena to the east. Some frozen snow is crossed, and a snow gully under the Cristallo Pass is mounted, leading in about 3 hours from Tre Croci to the first rocks on the south side, and to the so-called Long Band, which traverses all the south cliff of Cristallo at about two-thirds of its height. When this band is left, after about twenty minutes from the first spring, the real climbing begins, and a series of short but sometimes ticklish little chimneys, varied by easy steps and ledges of rock, takes us to the

summit in a comfortable 2 hours. The view from the top is one of the most extensive as well as one of the most magnificent in the Dolomites, and on a good day the summit is crowded with parties who have made the ascent.

The first ascent was made in 1865 by Paul Grohmann with Angelo and Santo Siorpaes, but the route followed was not exactly the one just described from Tre Croci. Grohmann's route was from Schluderbach on the other side, leading up the Val Fonda (now along a Club path) and across the Cristallo glacier to the Cristallo Pass (9260 feet), and so to the southern face, where it joins the Tre Croci route. This ascent is longer than the ordinary one, and more difficult, but for a competent party it can be recommended, whilst the traverse makes a still more interesting day.

Other routes have been made, all of exceptional difficulty. In 1877 Dr Minnigerode, with Michel Innerkofler, made the first ascent by the Cristallo glacier, the north face and the north-north-west arête, a route which does

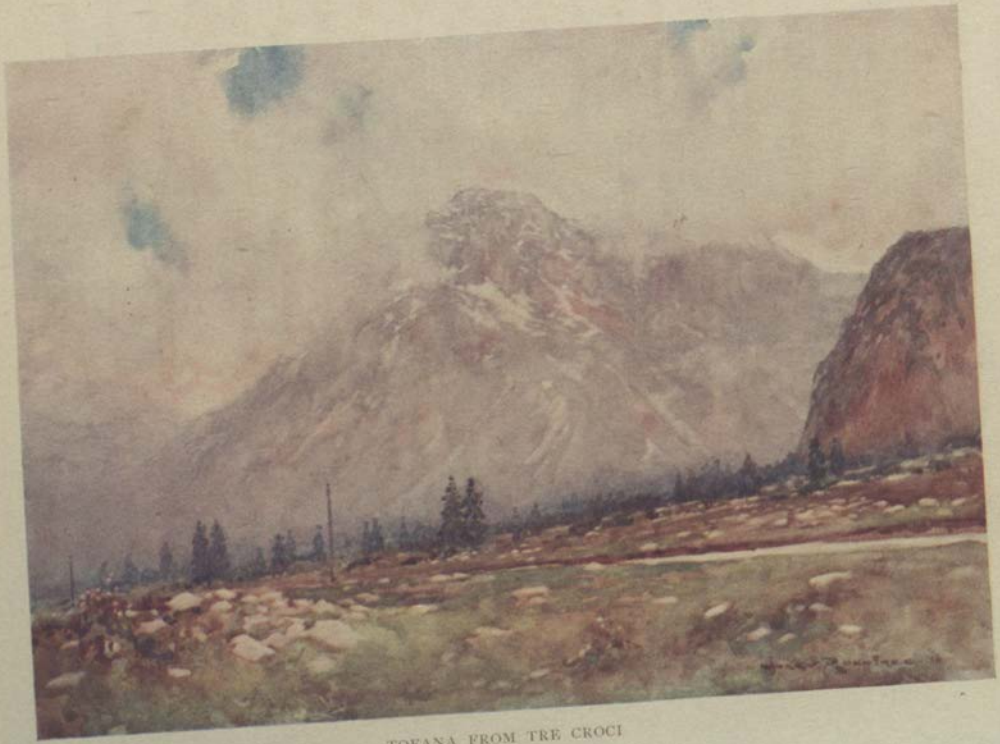
not touch the Cristallo Pass. In 1884 the east face was climbed from the pass by L. Friedmann with Michel Innerkofler. In 1893 Leone Sinigaglia, with Pietro Dimai and Zaccaria Pompanin, climbed the peak by the west, or, more accurately, the west-south-west face and arête, thus making the possible ascents complete by the north, south, east and west sides.

PIZ POPENA (10,310 feet).—Popena, seen from Tre Croci, is a sloping rock tower, with a magnificent wall of imposing precipices towards the Cristallo Pass. The ascent is somewhat more difficult than that of its neighbour, and the rocks are steeper. It was first climbed in 1870 by E. R. Whitwell with Santo Siorpaes and Christian Lauener. The ordinary route, which takes about six hours, leads from Schluderbach through the Val Popena bassa and the Val Popena alta towards the Torri della Popena, and leaving these on the left continues first up a broad rock gully, and then up the east face of Popena, by a series of chimneys, snow gullies and rock terraces,

gradually working south, and so to the summit.

The ascent from the Cristallo Pass is much more difficult, and is dangerous from falling stones and bad rocks; it was first made in 1884 by L. Friedmann, with Michel Innerkofler, on the same day that the same party made the first direct ascent of Cristallo from the pass by the east face. Another difficult route is by the south arête from Tre Croci.

TOFANA.—Tofana is really a little group of three peaks known as Tofana di Ratzes or Prima (10,565 feet), Tofana di Mezzo or Seconda (10,635 feet), and Tofana di Fuori or Terza (10,600 feet). Since the erection of the Tofana Hut by the Ampezzo Section of the D.O.A.V. the Tofana di Mezzo is the one usually ascended, the climb being tolerably easy and the scenery very attractive; and as the Tofana di Mezzo and the Tofana di Fuori are separated only by an hour's climbing the two are frequently taken in the same expedition. The first ascent of Tofana di Mezzo was made in 1863 by Paul Grohmann, and in the two



TOFANA FROM TRE CROCI

following years he made also the first ascents of the Tofana di Ratzes and the Tofana di Fuori. Grohmann relates that in the days when he began to explore the Cortina peaks, not merely was available information about the mountains extremely meagre, but guides in the modern sense did not exist. Chamois hunters were the only people who had ever penetrated the recesses of the mountains, and as each one frequented a particular district Grohmann's choice of a companion for his Tofana wanderings fell upon Francesco Lacedelli, an old and experienced hunter of chamois among the Tofana slopes. His route up the Tofana di Mezzo is the route ordinarily followed at the present day, and takes about three hours from the hut, where the night is usually spent. The hut (8490 feet) is reached in 4½ hours from Cortina, starting along the road to the Falzarego Pass, and after about two hours branching off along a narrow path to the right, which leads up the wide and desolate valley between the Tofana di Ratzes and the Tofana di Mezzo. From the hut the route lies

in a northerly direction, first by a stone-strewn slope and then by easy rock stairs and a wide scree gully to a small fork, the Forcella del Vallon Negro, after which the whole length of the western side of the Tofana di Mezzo is traversed by a broad and nearly horizontal rock band. This band leads to the small snow-covered glacier which comes down from both peaks, the Tofana di Mezzo and the Tofana di Fuori, and mounting the glacier in an easterly direction a small saddle between the two peaks is reached, whence, turning south, an easy passage over the northern ridge leads to the summit of the Tofana di Mezzo, whilst turning north the ridge leads to the summit of the Tofana di Fuori. Of the higher Dolomite summits the Tofana di Mezzo by this route is certainly the least difficult, which fact, together with the expectation of a fine view from the top, and the excitement of a night in a Club hut, makes it a favourite expedition even with those who make no pretensions to be climbers, but who are willing to pay a guide's fee for the " outing."

A more difficult route is that by the rocks of the steep eastern face, direct from Cortina, a route which leads up a steep and in parts snow-covered gully between the Tofana di Mezzo and the Tofana di Fuori, to the small saddle mentioned above. Still more difficult is the route by the south-west face, which starts from the Forcella del Vallon Negro already referred to.

The Tofana di Fuori can also be climbed by its west ridge from the Travenanzes Alp in the Val Travenanzes, by its north-north-east crest from Ospitale, and by still other routes on its various sides.

The third peak, Tofana di Ratzes, lies south of the hut, and is climbed by the north-east face in about 2½ hours. The way lies over steepish rock and scree slopes, and by Grohmann the climb was declared to be the easiest of the three, whilst some later writers describe it as being both fatiguing and uninteresting. In 1901 the south-east face was climbed by two Hungarian ladies, daughters of Baron Roland Eötvös, with Antonio Dimai and two other guides of Cortina.

Those who do not aspire to climb any of the three summits may, if they think it worth while, make a tour completely round the Tofana massif in some ten hours from Cortina, via the Ampezzo road, the Val Travenanzes, the Col dei Ros and the Falzarego road back to Cortina; but if they are prudent folk they will provision themselves before starting.

CRODA DA LAGO.—The Croda da Lago has two summits, of which the southern (Cima di Formin, 8910 feet, first climbed in 1878) is slightly higher than the northern (Cima d'Ambriciola, 8887 feet), but being of less climbing interest is seldom ascended. The first ascent of the northern peak was made in 1884 by Baron Eötvös with Michel Innerkofler up the east face, a route which remains the usual one to the present day. It is the most difficult of the Cortina group, and for many years before 1884 unsuccessful attempts to scale it had been repeatedly made. Starting from the Rifugio Barbaria, the long belt of rock which runs along nearly the whole of this east side of the precipice is

mounted and traversed in a southerly direction to a kind of platform—the "Rastplatz"—at the foot of the big gloomy gully which leads direct to the ridge between the two peaks, and by which the ascent is made. The face, however, is so wide, and all alike looks so hazardous and impracticable, that one wonders how any definite route could be discovered, or, after being found, could ever be recovered. Bearing left up the gully a series of chimneys and terraces takes the climber up from the Rastplatz to the *mauvais pas* of the ascent, a large flat slab of rock, with few and insignificant hand-holds, which has to be traversed. The traverse accomplished, the last long chimney leads to the ridge, whence a traverse under the summit, but now on the west face, is made over friable rock, requiring considerable care, and the peak is finally reached by another pair of short chimneys. Time from the hut, about three hours.

Once the route had been made the peak for so many years held to be impregnable was climbed four times in the next few weeks,

but its difficulties are such that it is an expedition to be undertaken only by the finest cragsmen. Two guides is the regulation number.

In 1893 Leone Sinigaglia, with Pietro Dimai, discovereda newroute bythe north ridge,which he described as shorter and more direct than the customary one. The climbing, he says, is not more difficult, the worst passages being short rock slabs of twenty or twenty-five feet in height, and as the climb proceeds for most of the way on the ridge the risk from stone falls is much less.

In 1895 the same intrepid mountaineer, with Zaccaria Pompanin and Angelo Zangiacomi, made another route, namely by the west face, which he regards as the most splendid and at the same time the most difficult climb in the Cortina Dolomites.

SORAPISS (10,520 feet).—Sorapiss is not only a fine-looking mountain, but next to the Croda da Lago it affords the best climbing in the Cortina group. It was first ascended in 1864 by Paul Grohmann, with Francesco

Lacedelli and Angelo Ghedina, from the Val Sorapiss on the north, via the lofty Pian della Foppa plateau, the Forcelletta del Pian della Foppa, and round the Foppa di Mattia, but this route is not much followed at the present day.

The popular route before the building of the Pfalzgau Hut was that from Chiapuzza, near San Vito, up the south-eastern face, a route which is now facilitated by the Rifugio San Marco (6036 feet) of the Italian Alpine Club, situated on the Colle di chi de Os, 2½ hours from San Vito. This route is the easiest, but is toilsome by reason of its long scree slopes, and is therefore more recommended for the descent. From the Rifugio it ascends by the Forcella Grande and the Sorapisskar.

The present usual route is the Müller Weg, up the north-eastern face, and starts from the Pfalzgau Hut (6350 feet), reached in two hours from Tre Croci by a marked path, and situated near the small Sorapiss Lake. From the hut the route starts in a southerly direction, and traversing a moraine leads in less than an hour to the Sorapiss Glacier, the right-hand branch

of which is crossed, and the foot of the rocks reached, not far from its highest point. The climbing begins up solid rocks, which are surmounted in nearly a straight line, and continues by the usual chimneys to the usual terraces, and to the (also usual) *mauvais pas*, in this case a bit of wall about 14 feet high, vertical and smooth, now adorned with a fixed rope. Two more chimneys lead to the Vorgipfel, from which a descent is made to the saddle, and the highest peak reached over easy rocks. Time from the hut, about five hours.

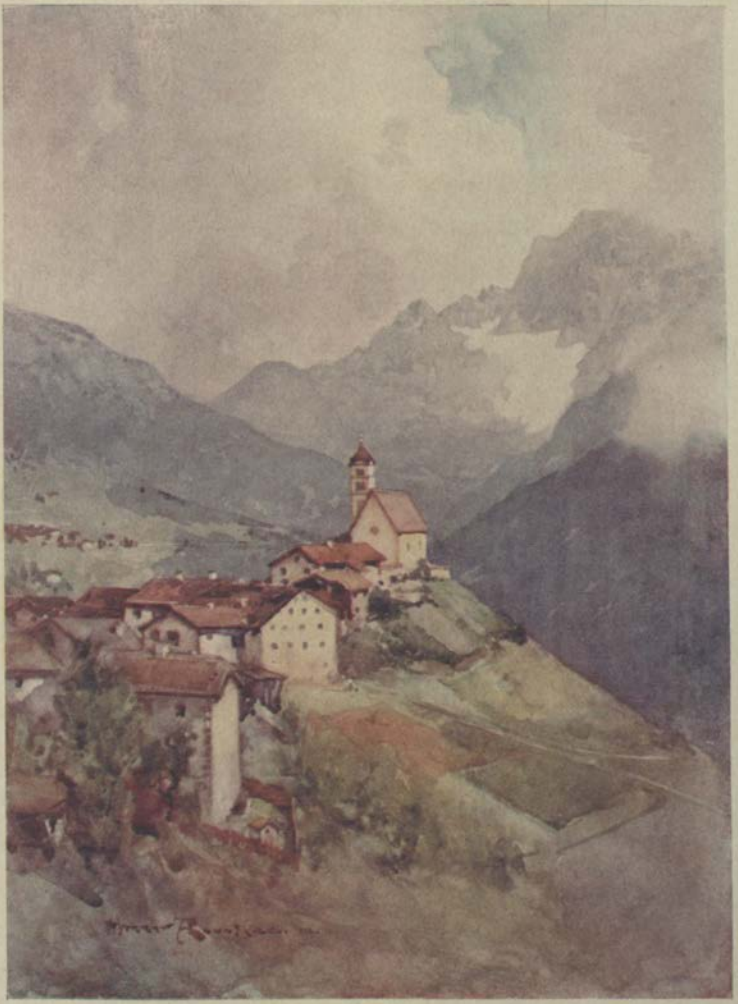
ANTELAO (10,710 feet).—Antelao is the highest summit of the Cortina group, and the second highest in the Dolomites. The first ascent was made in 1863 by Paul Grohmann, with Alessandro and Francesco Lacedelli and M. Ossi, the latter of whom declared to Grohmann that he had already climbed the peak whilst hunting chamois, but his ignorance of the last part of the climb seemed to Grohmann to show that he had never been on the actual summit. Their route was by the north arête, and this is the one still followed. The Rifugio

San Marco (6036 feet), which serves for one of the ascents of Sorapiss, serves also for the ascent of Antelao, the route being via the Forcella Piccola and up to the broad ridge which comes down towards the Forcella from the peak. Following the ridge to the foot of the final ascent, and avoiding the snow-field on the left, a chimney leads up to the summit. The climb is somewhat toilsome, but not difficult. Time from the hut, about five hours.

Two other ways are known, both of much greater difficulty. One is from Tai di Cadore, past the Casera Antelao and the Antelao Glacier and up the east arête, discovered in 1886 by Captain David Minini with Giuseppe Pordon. The other is from San Vito by the west arête, first climbed in 1892 by Emil Artmann with Sepp Innerkofler. Both are much longer than the ordinary route, and are seldom attempted.

MONTE PELMO (10,395 feet) is a fairly popular peak, frequented on account of its accessibility and the beauty and extent of the panorama from its summit. It was the

first mountain in the Dolomite region to be ascended, that is the first among those which require any real climbing, for as to the Schlern, and others which involve only scrambling, these were no doubt ascended occasionally by chamois-hunters and herdsmen from time immemorial. The honour of overcoming this first of the Dolomite peaks fell to John Ball, at one time Under Secretary for the Colonies, but better known as one of the earliest mountaineers and the first President of the Alpine Club. Ball's route, which was up the east face, and is the one still usually followed, is now facilitated by the Rifugio di Venezia (6624 feet), on the Passo di Rutorto, 3½ hours from San Vito. Half an hour's walking from the hut brings the climber to the foot of the rocks, where a short ascent leads to a band which traverses the east flank of the imposing precipice at about one-third of its height, and which is followed to the left for about three-quarters of an hour. The band is about a yard wide, and in parts is somewhat sensational, both on account of the walls which tower



MONTE PELMO AND COLLE DI SANTA LUCIA

above and of the precipices at the edge of which it wends its way to a platform that leads to the upper snows. A narrow cornice of rock, the *mauvais pas* of the route, presents some difficulty, but the further climbing is over easy terraces of detritus in a wide upland valley, till the snow of the little Pelmo glacier is reached, after crossing which, in the direction of the middle of the three Pelmo peaks, the final ridge is ascended and followed to the cairn. Time from the hut, about five hours. Sinigaglia, a climber of repute, regards this ascent of the Pelmo as a mere "constitutional," while the equally reputable authors of the *Hochtourist* describe it as a difficult climb only to be attempted by sure-footed cragsmen. Between such eminent doctors who shall decide?

CIVETTA (10,565 feet).—A fine rock pyramid of only moderate difficulty, but sometimes dangerous on account of falling stones. The first ascent was in 1867 by F. F. Tuckett, with Melchior and Jakob Anderegg of Meiringen and Simeone Piovanel. From Mareson in the

upper part of the Val di Zoldo the route lies through Pecol in about three hours to the east walls of Civetta; then up through avalanche snow and to the left of a snow gully, which is crossed above by a ledge where a rope is fixed. From here, by rocks and steep snow direct to the peak, or alternatively to the high col looking towards the Val della Grava, and along the arête. Time from Pecol about six hours.

The steep and exceptionally difficult west side was climbed in 1895 by J. S. Phillimore and A. G. S. Raynor with Antonio Dimai and Santo Siorpaes.

MARMAROLE, or Monti delle Maramole, a chain of peaks of which the highest is the Pala di Meduce (9715 feet) at its west end. The ascent is not difficult but is toilsome, requiring some eight hours from Stabiziane in the Val d'Ansiei. The first ascent was made in 1890 by L. Darmstädter and Mrs Helversen with three guides, and the route lies via the Casa San Marco (Customs house) up the Val Meduce di dentro to the desolate Hochkar plateau. Thence up the broad snow gully between the

Pala di Meduce and the Mescolgrat to the col, and on to the ridge, following which and rounding a difficult gendarme the summit is reached by the east face.

On the north side of the chain is the Rifugio Tiziano (7340 feet), reached in three hours from Stabiziane, and convenient for many of the Marmarole peaks, in particular for Monte Froppa (9620 feet), which, though lower, is now more frequented than the Pala di Meduce. The summit is reached in 3½ hours from the hut. It can also be climbed by its south-east face, starting from Auronzo and proceeding via the Val di Rin, the Forcella Marmarole and the Forcella Froppa.

CINQUE TORRI.—The Cinque Torri are an assemblage of rocks on the plateau of Averau; not that there are exactly five, counting big and little, but there are five principal heights. The highest, the real Torre di Averau, is the one commonly climbed, and is some 750 feet from base to summit. The climb commences up the chimney on the north side, and quickly leads into the very heart of the rock, so that

the best part of it is done in the interior in semi-twilight. The climbing is safe and interesting, and affords specimens in miniature of all sorts of rock work—chimneys, buttresses, arêtes, ledges, terraces, cavities, cracks, galleries and faces. Decidedly a good climb, and not long—say three-quarters of an hour. It was discovered in 1880 by T. E. Wall with Giuseppe Ghedina, and by now there are several variations.

OTHER CLIMBS.—The foregoing is a brief survey of the chief mountains in the Cortina Group, but it by no means exhausts the climbs of the district. Most of the more obvious peaks have satellites around them, and sandwiched between the main masses, or on their outskirts, there are less important peaks, like the Becco di Mezzodì (8430 feet), the Croda Rossa (10,330 feet) and the Punta Nord del Nuvolau (8685 feet).

PASSES.—The high passes are few, the principal one being the Cristallo Pass, but the wanderer may "col" the peaks or take the easy passes, of which there are many. Thus

from Cortina to Caprile there are the Falzarego Pass, the Col Gian, the Forcella da Lago and the route over the summit of the Nuvolau. From Tre Croci to Ospitale through the Val Grande; from San Vito to Pieve di Cadore over the Forcella Piccola, and through the Val Olten.

CHAPTER XVI

CLIMBING IN THE DOLOMITES (II)— SEXTEN GROUP, ETC.

THE Sexten Dolomites lie immediately south of the Pusterthal at Innichen, and are enclosed on the east by the Sextenthal (from which they derive their name), on the south by the Val d'Ansiei, and on the west by the Höhlensteinthal. From the north the group can be approached by way of the Pusterthal to Innichen, and thence to Sexten, and from the south and west by Cortina to Landro.

Instead of an assemblage of mountain masses, separated from each other by broad saddles and valleys, such as we found in the Cortina group, we have here a cluster of close-lying peaks welded together into a compact heap. The group may indeed be regarded as consisting of a high central plateau, from which rise the Drei Zinnen, and which throws

out as limbs the other principal summits, namely, the Birkenkofel and Dreischusterspitze to the north, the Elferkofel and Zwölferkofel to the east, the Cime Cadini to the south, all separated from the plateau by high passes but all recognizably belonging to the same body.

The massif is penetrated by several small valleys which lead into the heart of this rocky world, the Innerfeldthal and Fischleinthal opening into the Sextenthal on the east, the Val Giralba and the Val Marzon into the Val d'Ansiei on the south, the Schwarze Rienzthal and the Val di Rimbianco into the Höhlensteinthal on the west. Smiling meadows and wooded hills please the eye in the lower sections of these valleys, giving place in the upper regions to the wild and rugged beauty of the typical Dolomite landscape.

The Club Huts of this region are the Drei Zinnen Hut (7897 feet—inn in summer), four hours from Landro on the west, and the same distance from Sexten on the east—and the Zsigmondy Hut (7320 feet), also an inn in summer, four hours to the south of Sexten, or reached

from Auronzo in a long walk of seven or eight hours. The two huts are connected by a good path with very fine views, which takes about three hours to traverse.

There is also an inn, the Alpensee Hotel Drei Zinnen on the Boden Alp, close to the Club Hut, both the inn and the hut being frequently full in summer. Sexten is the most convenient stopping-place for the centrist, but most of the climbs are done from one or other of the huts.

The names of the principal peaks have frequently some reference to their physical features. Thus Zinne means simply pinnacle; the Elfer, Zwölfer and Einser are so-called because, as seen from Sexten, the sun is over the first at eleven, the second at twelve, and the third at one o'clock; the Cime Cadini receive their name from the "cadini" (German, Kare), gullies filled with scree and snow which are so much in evidence there.

A map of the Ampezzo and Sexten Dolomites, in two sheets, by the K.K. Militär.-Geograph. Institut, is published by R. Lechner, Graben, Vienna, and the relative sections of

the Oesterreichische Spezialkarte are Zone 19, Kol. 6 and 7.

Climbs in the Sexten Group

The Drei Zinnen, three gigantic rock obelisks, almost in a straight line with one another, of which the middle one is the Grosse Zinne, the western is the Westliche Zinne, and the eastern the Kleine Zinne.

Grosse Zinne (9850 feet). The Grosse Zinne is a massive rock whose north side is a smooth face which looks as if it had been clean cut with a giant knife; the west is a narrow ridge falling perpendicularly for some hundreds of feet, whilst the east side slopes at so terrific an angle as effectively deterred all the early climbers from thinking of it as a possible line of ascent. There remains the south side, up which Paul Grohmann, with Peter Salcher and Franz Innerkofler, forced a way in 1869, and so made the first ascent of the Grosse Zinne. At the right-hand end of this face an outlying buttress is joined to the main mass by a small col, and from this col runs a gully

down the east face to the screes between the Grosse and the Kleine Zinne. The climb begins at the foot of this gully, the place being easily recognized by the empty tins and bottles which denote its use as a breakfast place. To reach it from the Drei Zinnen Hut (7897 feet) the route is over the Paternsattel (called also Passporte and Forcella Lavaredo) and round the Kleine Zinne, a walk of 1¼ hours. The gully is climbed for a little way, and then the rocks on the left up to the little col above mentioned, where the south face is joined. Here there is a choice of routes; the old way was to descend to the broad "untere Band" and to follow it to the west for some 150 feet, then to turn right at a very acute angle over fairly easy rocks to a gully recognized by the red rocks above it, in which gully there is frequently a welcome pool of clear water; the new way is to avoid this detour by climbing diagonally to the left. From here the ascent is more or less straight up by chimneys and open face to the "obere Band," which is followed to the left, and then over rocks

to the right to the trigonometrical signal on the summit. Time from the screes at the foot, about 2½ hours. The climb is difficult, but is the easiest of the three Zinnen.

Another and more difficult route leads from the " untere Band," or from the col between the Grosse and the Westliche Zinne, up the Mosca kamin on the west side of the south face.

A third and still more difficult route was made in 1897 by J. S. Phillimore and A. G. S. Raynor, with Antonio Dimai and Giuseppe Collis, up the east face.

WESTLICHE ZINNE (9755 feet). It was not till ten years after the Grosse Zinne was conquered that another of these remarkable peaks gave way and the Westliche Zinne was climbed for the first time by Georg Ploner with Michel Innerkofler. It stands midway in difficulty as well as in height between the Grosse Zinne and the Kleine Zinne, and as it thus entices neither those who seek the greatest obstacles nor those who prefer the least, nor yet those who aim at the highest summit, it is less popular than either of its neighbours. The usual

ascent is from the hut, by the Paternsattel, and round the south sides of the Kleine and the Grosse to the gully running up to the col between the Grosse and the Westliche; then up the gully and the rocks to the band that runs round its E., S. and W. sides at about two-thirds of its height, and finally up the west face. (Time from the hut about 4 hours).

In 1899 the east face was climbed by C. C. B. Moss and Dr. T. K. Rose, with Sepp and Michel Innerkofler.

KLEINE ZINNE (9452 feet). The striking appearance of this formidable and magnificent pinnacle, together with the fearful renown of the "berühmte Traversierstelle"—the Little Zinne Traverse,—of its Zsigmondy kamin, and of its steep and apparently impregnable walls of rock, have combined to make the name of the Kleine Zinne better known than that of any other peak in the Dolomites.

It consists of a principal pinnacle, the Hauptgipfel, with a lower peak, the Punta di Frida, and a buttress of the latter, all three rising from the same base, and whatever side

one looks at one can only wonder that a way was ever found up such imposing precipices. Even the bold Michel at first counted it impossible to climb "except one had wings," and after his own successful ascent he used to say in his Tyrolese German, "Schlechter als die kleinste Zinne kann a Berg scho nimmer sein—die is a Teifel"—"Nothing can be worse than the Kleine Zinne; it is a devil of a peak."

The first ascent was made in 1881, up the west face, by Michel and his brother Johann Innerkofler, who a few weeks later led the first amateur climber, Demeter Diamantidi, not only up the Kleine Zinne but up all three Zinnen on the same day. The route then followed remains the usual route, and starts from the gully between the Grosse and the Kleine Zinne, reached from the hut by crossing the Paternsattel and skirting the southern cliffs of the Kleine. Climbing the wild gorge between the precipices of the two peaks, the point of attack is a little beyond and opposite the rocky couloir which goes up to the Grosse Zinne in a westerly direction, where the ascent

of the latter peak is commenced. It is a little recess easily visible from below. From the take-off first come solid rocks and short chimneys, followed quickly by the difficult traverse, which lasts about fifteen minutes. The ledge is narrow, the wall above straight up, the drop below nearly perpendicular and the depth profound, the hand-holds few and the rope of small if any assistance. After the traverse some miscellaneous rock-work, always difficult, and then more chimneys till the "shoulder" is reached, a depression between the Hauptgipfel and the Südgipfel, whence the final peak rises. There is here a choice of two chimneys, the Innerkofler kamin and the Zsigmondy kamin, both of extreme difficulty; the latter is the one now preferred notwithstanding the overhanging rock in the middle. The chimney vanquished, a few minutes' easy climbing leads to the slender ridge which forms the summit. Time from the foot of the rocks, about 2½ hours. The rock is good throughout, but the steepness and the difficulties render the climb one fit only for

experienced mountaineers who are very sure of their heads, and likewise of their feet.

In 1890 the north face was climbed by Dr. Hans Helversen with Sepp and Veit Innerkofler. The route is from the Paternsattel along the north side of the Kleine Zinne to the snow couloir between the Grosse and the Kleine. The take-off is a short way up the couloir, from which a series of chimneys leads up to the Nordwandsattel, the depression between the Hauptgipfel and the Punta di Frida. From the Nordwandsattel the climb continues up the left of the two parallel cracks which seem to run more or less continuously to the summit, and about two-thirds of the way up reaches an overhanging part which can be distinguished even from the hut by the yellow colour of the rock. This part is rounded by the "Ampezzaner Schleifenweg," and after following the upper part of the crack for a short distance a parallel crack to the left is taken which leads to the summit ridge. This route is much exposed, and is everywhere of extraordinary difficulty.

In 1906 the east face was climbed by Adolf Witzenmann with Giovanni Siorpaes and Sepp Innerkofler, the route leading under the Nordwandsattel and up steep chimneys to the "shoulder." Just below the shoulder the help of a rope thrown by another party who had reached the shoulder by the ordinary route was accepted, as Witzenmann relates in his interesting account of the climb. He describes it as the most difficult climb he knows in the Dolomites. It has since been accomplished by a variation at the place where the help of the rope was given.

DREISCHUSTERSPITZE (10,375 feet), the highest peak of the Sexten group, is situated between the Fischleinthal and the Innerfeldthal, and as seen from the former is a magnificent mass with a very imposing grandeur of its own.

It was first ascended in 1869 by Paul Grohmann with Peter Salcher and Franz Innerkofler, and by their route, which is the one still generally followed, is not difficult except for the last part of the ascent. Starting from

Sexten the way lies up the Fischleinthal, and then to the right by a path leading up the Weisslahn Graben and over the extensive and fatiguing screes of the Weisslahn; up a gully of débris and across a second belt of scree to a large and wide snow gully, which is ascended for some distance, followed by an easy climb up the rocks to the left in the direction of the summit. At the foot of the last wall of rock, just under the peak, is a difficult chimney, followed by a steep face of rock leading to the ridge and summit. Time from Sexten about seven hours.

Much more difficult is the ascent from the Innerfeldthal on the other side, first made in 1888 by Robert Hans Schmitt and S. Zilger with Pietro Dimai.

ELFERKOFEL (10,220 feet). A difficult peak first climbed in 1879 by Michel Innerkofler. He was accompanied at the start by his brother Johann and Baron Roland Eötvös, but the former having been struck by a falling stone they did not persist in the attempt, and Michel alone reached the summit.

The usual route taken now is not that of the early climbers. It leads from the Zsigmondy Hut (7320 feet) round the south and east sides of the Hohe Leist to the Aeussere Loch, and up the south-west face. The eastern face was climbed in 1892 by Oskar Schuster with Veit Innerkofler and J. Hausberger.

ZWÖLFERKOFEL (10,150 feet). One of the most beautiful peaks in the Dolomites and one of the most difficult to ascend. "One mountain is like another," said Michel Innerkofler to Zsigmondy, "but the Elfer and the Zwölfer alone are difficult, the Zwölfer on account of its great ice couloir and the Elfer because of the hard bit at the top."

It was first climbed in 1875 by Michel and Johann Innerkofler by the south-west face and the ice couloir which cleaves this side of the mountain; but the ice couloir being frequently impossible, and usually dangerous on account of falling stones, a route which avoids it is now generally followed. This was discovered in 1887 by M. Simon and J. Reichl with Michel and Johann Innerkofler. It leads

from the Zsigmondy Hut to the Sandebüheljoch, and round the base of the south-west face, till the rocks can be climbed to the lower outlet of the steep ice couloir which gradually comes in sight. Instead of following the couloir the route leads up the rocks to the left and by slabs and chimneys, from ledge to ledge, the ice of the couloir occasionally visible, to a wide belt of débris, from which the final chimney rises, at the top of which an easy walk over scree ascends to the summit. Time from the hut about five hours. The rock is good, but the climbing is continuously difficult.

In 1887 a new route was made from the Val Giralba by Robert Hans Schmitt and Georg Winkler, over the secondary peak (the Südliche Nebengipfel) of the Zwölfer, joining the ordinary route near the top of the ice couloir.

A fourth route was made in 1890 by Dr. Hans Helversen and Dr. Witlaczill, with Sepp and Veit Innerkofler, from the Giralbajoch to the col between the Kleine Zwölfer and the Zwölfer itself, and up the east face.

Finally, in 1897, the north-east face was climbed by Adolf and Emil Witzenmann, with A. and G. Siorpaes.

The CIME CADINI are a little-known collection of peaks lying due east of the Misurina See, seen from Monte Pian near Schluderbach as two compact many-toothed rock stocks. A tour round the group can be made in six or seven hours from the Misurina See via the Col di Pian di Manetto, the Forcella Maraja, the Val d'Onge and the Valle Campedelle.

The highest peak is the Höchste Cadinspitze or Cima Cadini (9320 feet), an easy climb of four hours from the Misurina See via the Lago Vantorno and the Forcella Rimbianco, and then south up the high valley or kar which here opens out, strewn with rocks, scree and snow. The Kar can be reached also without so much fatiguing scree-climbing by branching off to the right at the Lago Vantorno and ascending to the Passo di Tocci between the Kleiner Popena and the Nord-westliche Cadinspitze. From the kar a snow couloir on the left separating the Höchste from the

Nordöstlichespitze is mounted to the ridge, whence easy rocks lead to the summit.

MINOR CLIMBS.—Other climbs in the Sexten Dolomites which can merely be mentioned are the Einserkofel (8855 feet), Paternkofel (9000 feet), Torre Siorpaes (8376 feet) and Col dei Bagni (9790 feet). Easy as regards climbing, but in some cases fatiguing, are the Haunold (9535 feet)—from the south — Birkenkofel (9555 feet), Kanzel (8294 feet), Oberbachernspitze (8770 feet), Schwalbenkofel (9410 feet), Schusterplatte (9491 feet), and Hochbrunnerschneide (10,040 feet).

PASSES.—Easy passes are the Toblinger Riedel (Drei Zinnen Hut) from Landro to Sexten; from Schluderbach to Sexten over the Forcella Lungieres, Patern Sattel and Toblinger Riedel; Bühelejoch, from Sexten to the Marzon and Ansiei valleys; Wildgrabenjoch, from Sexten to Landro; Sandebüheljoch, from Sexten to Auronzo; Giralbajoch, from Sexten to Auronzo by the Zsigmondy Hut.

THE DOLOMITES

Marmolata Group

Though the Marmolata group is distinguished by possessing the highest peak and the largest, indeed the only, glacier of any size in the Dolomites, English climbers have not hitherto paid much attention to the district, though of course the Marmolata peak itself has been well enough known to them since 1860, when Ball unsuccessfully attempted its ascent. Perhaps this neglect is due in part to its comparative inaccessibility, there being no convenient and popular tourist centres, like Cortina and Sexten, in the groups already considered, from which the peaks can be taken direct.

The group is enclosed by the Dolomitenstrasse on the north, the Fassathal on the west, and the route from Moena via Pellegrino to Caprile on the south, immediate access to the peaks being from the Fedaja Pass on the north, the Contrinthal on the west, the village of Sottoguda on the east and the Pellegrino Pass on the south. Sottoguda possesses an inn, and on the Pellegrino Pass are the old Ospicio

San Pellegrino and a new Hotel Monzoni; but the Fedaja Pass and the Contrinthal are more generally convenient for the ascents and are well provided with accommodation, the Fedaja Pass having in its neighbourhood Valentini's Inn as well as the Fedaja Haus (6700 feet—inn in summer) of the Bamberger Section of the D.O.A.V., and the Contrinthal having the Contrin Haus (6890 feet—inn in summer) of Section Nuremberg.

Near the Passo delle Selle, on the path from the Pellegrino Pass to Pozza, is the Rifugio Taramelli belonging to the Trient Alpine Club.

The Fedaja Pass can be reached in three hours from the Pordoijoch by the new "Bindelsteig," a club path made by the Bamberger Section; from Campitello through Penia in 3½ hours; and from Caprile by Sottoguda in five hours; whilst the Contrin Haus is reached from Campitello in 3½ hours; from Moena in the Fleimserthal up the Val di San Pellegrino to the Pellegrino Pass and thence in four hours over the Sirelle Pass; and from Vigo di Fassa or Pozza in the Fassathal up the Val di San Nicolo in seven hours.

An examination of the group discloses two principal chains which run nearly parallel to one another and in the direction of east to west; long rock ranges which have this peculiarity, that their northern sides are of moderate slope, whilst their southern sides are distinguished by a steepness which, attaining its maximum in the south face of the Marmolata, can hardly be equalled in the whole Dolomite region. The northern of these two chains comprises the Marmolata, the Vernel, the Punta Cornate and the Col Laz; the southern is a long chain which commences with the Monte Fop in the east and extends to the Monte Rissone in the west; whilst joined to the northern chain by the Passo Ombretta and to the southern chain by the Passo Ombrettola is the horse-shoe-shaped ridge of the Vernale and Ombretta. The interesting little Val Ombretta separates the two main chains at the east end, and the Contrinthal and Val di San Nicolo at the west end.

An excellent map of the group is published by the D.O.A.V., price Kr. 4.70, which can

be obtained by members of the Club at half-price from their Sections.

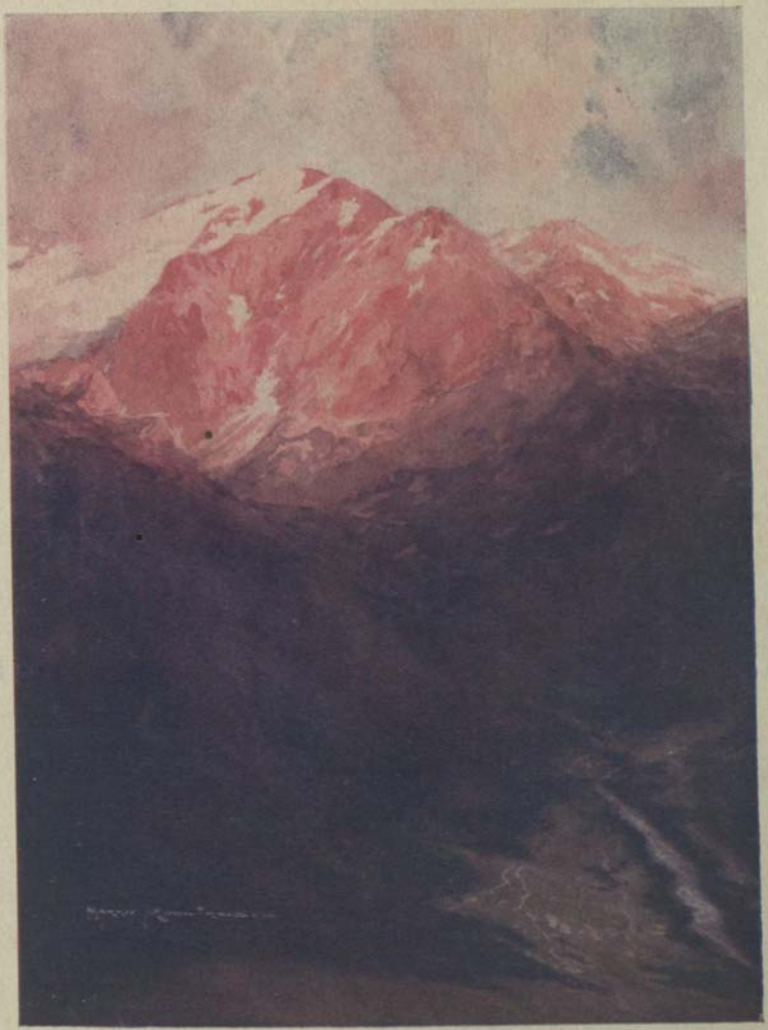
Climbs in the Marmolata Group

Marmolata or Monte di Penia (11,024 feet). —Glancing around from the summit of almost any of the south Tyrol peaks one can hardly fail to be struck by the pre-eminence of this proud queen of the Dolomites, the glacier-encircled Marmolata. A comparatively easy climb by the ordinary route, now rendered more accessible by the Club path from the Pordoijoch, it attracts yearly large numbers of German and Austrian tourists, and bids fair to become a rival to the Gross Glockner itself as the crowning evidence of their claim to the coveted title of Hochtourist.

It was first ascended in 1864 by Pau Grohmann, with Angelo and Fulgentio Dimai, from the Fedaja Pass, and this is still the ordinary route. Starting from the Club Hut or from Valentini's Inn a Club path leads direct to the glacier, which is crossed almost due south to the snow hollow which goes steeply

up between the Marmolata di Rocca on the left and the true summit on the right. Zig-zagging up the snow, keeping a careful look-out for avalanches, and finally turning right to the east face of the north arête, a steep climb over good rocks leads to the upper snows, which are traversed to the summit. Time from the hut about five hours. When passing the rocks of the east face of the north arête there may be seen the Grotta del Club Alpino Italiano, an excavation intended to afford shelter in case of snowstorms.

The peak is also climbed from the Contrin Haus on the south side, by way of the Marmolatascharte (9840 feet), a route discovered in 1872 by F. F. Tuckett. Starting along the club path to the Ombretta Pass, this is quitted after an hour, and a path to the left taken in the direction of the Scharte, which is reached in an hour and a half's climbing, now made easy by fixed ropes. From the Scharte there is a choice of routes. One way is to proceed in a north-easterly direction over the western part of the Marmolata Glacier, which abuts on the



MARMOLATA FROM THE SELLA PASS

Scharte, and to cross the rock ridge known as the Piz Fedaja at about the middle of the ridge, thus reaching the eastern half of the glacier and joining the ordinary route from the Fedaja Pass. The other way is to climb the west arête of the Marmolata, which goes off to the right at the Scharte, straight to the summit. This latter route was formerly a difficult and hazardous ascent, but since 1903 it has been liberally festooned with wire rope. As there was already a tolerably easy way to the summit, the need for this "facilitating" of the west arête may be doubted, but its authors appear to defend it on the double ground that the magnitude and difficulty of their undertaking will excite the wonder and admiration of all critical doubters, and that there will always remain for climbers the piquant Südwand, which at any rate it is impossible so to adorn—or deface.

The ascent by the precipitous south face was first accomplished in 1901 by Miss Thomason, with Michele Bettega and Bartolo Zagonel. Starting from below the Ombretta Pass, the

climb commences about 150 yards to the right of, and below, the big couloir which runs down from the summit ridge and bisects the face, and after reaching the first terrace proceeds along it to the left nearly as far as the couloir. From here to the second terrace, nearly straight up over the face, and then up a crack leading off to the right. Following the second terrace to the east, and then proceeding mainly up a bent couloir, which comes down from the ridge, the couloir is left just below the little col, and the summit reached by the face and the snow ridge. So excellent an authority as Mr. E. A. Broom describes it as undoubtedly the best climb in the Dolomites.

VERNEL or GRAN VERNEL (10,519 feet) is an imposing-looking rock pyramid in the northern chain of the group, separated from the Kleiner Vernel by the Vernelscharte, the Kleiner Vernel being itself separated from the Marmolata by the Marmolatascharte. It is a difficult peak, first climbed in 1879 by Gottfried Merzbacher, with Giorgio and Battista Bernard. From the Fedaja Pass it is reached

via the Marmolata Glacier and the steep Vernel Glacier up to the Vernelscharte, then up the S.E. face and along the S. arête. Time from the Fedaja Pass about 5½ hours.

Another route, also very difficult, is from the Contrin Haus up the steep ice couloir on the west side of the Kleiner Vernel to the Vernelscharte, where the route joins that from the Fedaja side.

SASSO VERNALE (10,309 feet).—A tolerably difficult peak, first climbed in 1879 by Gottfried Merzbacher and Cesare Thome, with Giorgio Bernard and Santo Siorpaes, their route being from the upper Contrinthal to the Vernale Glacier and up to the north arête. The usual route now is from the Contrin Haus by a path to the Passo Ombrettola (2½ hours) between the Sasso Vernale and the Sasso di Val Fredda, and up the south arête. A rock tower near the commencement of the climb has to be turned, and higher up several deep clefts, by keeping to the right, sometimes on the south-east face. The summit is reached in about 1½ hours from the Pass. The Passo Ombrettola

can also be reached from Sottoguda (near Caprile) up the Val Ombretta, which lies between the Marmolata south face and the Monte Fop, but care must be taken to keep to the left after leaving the huts of the Malga Ombretta as the path to the right leads to the Passo Ombretta.

OTHER CLIMBS.—There are many minor peaks in this group of which some are easy climbs, such as the Col Ombert (8780 feet), Cima Ombrettola (9586 feet), Östliche Cima Cadina (9450 feet), Col Laz (8936 feet), Cima Ombretta (9870 feet, overlooking the Contrin Haus); others difficult, such as the Monte Banca (9409 feet, Monte Fop (9458 feet), Sasso di Val Fredda (9974 feet); whilst still more difficult are the Marmolata di Rocca (10,820 feet), Punta Cornate (9980 feet), Punta dell' Uomo (9868 feet), and the Kleiner Vernel (10,144 feet).

PASSES.—The Fedaja Pass, the Sirelle Pass and the Marmolatascharte have already been referred to. The Forcella di Padon leads from the Fedaja to Pieve di Livinallongo (Buchen-

stein) in 4½ hours, and is the shortest way to or from Cortina. The Ombretta Pass and the Ombrettola Pass both supply routes from the Contrin Haus to Sottoguda (for Caprile) as well as to the Fedaja Pass, and the Forca Rossa supplies a route from San Pellegrino down the Val Franzetas to the same places.

The Gröden Group

This group rises round the Grödnerthal and consists of three sub-groups: (1) the Langkofel, and (2) Sella on the south of the valley; (3) the Geisler on the north.

(1) *Langkofel Sub-Group*

The Langkofel sub-group is a small, nearly circular mass, bounded on the north by the Grödnerthal, on the east by the route from Wolkenstein over the Sellajoch to Campitello, on the south by the Val Duron, and on the west by the route from St Christina to the Mahlknechtjoch. It is conveniently reached from Waidbruck on the west, a station on the Brenner Railway, by the Grödnerthal to St Ulrich; from Cortina on the east by the

Dolomiten-strasse over the Pordoijoch to the Club Hut on the Sellajoch; from Bruneck in the Pusterthal on the north up the Gaderthal and over the Grödnerjoch to Wolkenstein; from the Fassathal in the south by the road to Campitello and then via the Fassajoch to St. Christina, or, via the Sellajoch to the Sellajoch Club Hut.

In shape the massif resembles a huge horseshoe, on the rim of which are ranged the principal summits. The middle is occupied by two high-lying sterile basins, the Langkofel Kar and the Plattkofel Kar, separated from each other by a rock spur which culminates in the Langkofelkarspitze, at the foot of which the two basins join and open out into the Confin Boden. At the head of the Langkofel Kar, between the walls of the Fünffingerspitze the Grohmannspitze and the Langkofelkarspitze lies the small Grohmann Glacier, and a still smaller glacier is embedded in the rocks of the Langkofelspitze. The group is remarkable in that, with the solitary exception of the Plattkofel, all its climbs are of extreme difficulty.

The Club Huts are, the one on the Sella-joch already mentioned (7275 feet—inn in summer), near which is also Valentini's Inn, and the Langkofel Hut (7250 feet—inn in summer), in the Langkofelkar, which is the usual starting-point for nearly all ascents. Either hut can be reached easily from the other by the Langkofeljoch. St Ulrich makes a suitable head-quarters, and there are convenient inns higher up the valley as well as on the Grödnerjoch and the Mahlknecht Schwaige.

A map containing both the Langkofel and the Sella groups is published by the D.O.A.V., price Kr. 4.70, obtainable at half-price by members of the Club through their Sections.

LANGKOFEL (10,427 feet) is a huge mass which ranks with the Cortina mountains for bulk and height. The northern side overlooks the upper Grödnerthal, where its immense cliff displays itself prominently to the traveller from St Ulrich to the Grödnerjoch. It was first ascended in 1869 by Paul Grohmann, with Franz Innerkofler and Peter Salcher, from the Langkofel Kar, up a gully leading down from

the rock basin in which lies the Langkofel Glacier, then up an ice couloir, the so-called "untere Eisrinne," and finally up a second ice couloir, the so-called "obere Eisrinne." These two couloirs, however, in particular the upper one, being narrow, steep, and at times stone-swept, are extremely dangerous, except in early summer when there is much snow, so that the route over the rocks—the Felsenweg, which avoids the obere and which was discovered in 1892 by the guide Luigi Bernard and the porter Giuseppe Davarda—is now usually followed. The climb is difficult, but under favourable conditions is now frequently performed by good climbers. Time from the Langkofel Hut about 4½ hours.

Three other routes have been made, all of great difficulty, namely by the S.E. arête, the N.E. face and the N. face respectively.

FÜNFFINGERSPITZE (9833 feet).—The extraordinary reputation for difficulty which this peak justly possesses is well known; in company with the Kleine Zinne and the Vajolet Thürme it is the type of the modern rock

pinnacle which is climbed out of pure love of adventure and for the sake of experiencing the delight of overcoming great physical difficulties, and not for the sake of a fine view or from a natural inclination for attaining the most prominent height in a district.

Its name indicates its general resemblance to a hand, only, as Norman-Neruda says, "you must not be too accurate in counting the fingers." Seen from the south, the Sella-joch side, the pinnacle on the right is the thumb or "Daumen"; the col between this and the first finger (Zeigefinger, seen better from the Langkofel Kar side) is called the Daumenscharte, and the second or middle finger (Mittelfinger) is the highest summit. Between the Zeigefinger and the peak finger on this south side is the Schmitt Kamin. Seen from the Langkofel Kar the appearance is that of the back of a right hand.

The peak will always be associated with the name of Norman-Neruda, upon whom it exercised a fascination which led him to the summit six times. In 1891 he and Christian

Klucker discovered the route up the north side; in 1894 he climbed the Schmitt Kamin alone, descending by the Daumenscharte route; in 1895 he and Rudolf von Arvay traversed on the same day all the four ways, namely up the Schmitt Kamin and down the north route, then up the west route and down the Daumenscharte route, all in six hours. In 1898, "by a cruel irony of fate," as his widow wrote in her preface to *The Climbs of Norman-Neruda*, "he met his death on the very mountain with which he was most familiar, and through a momentary neglect of one of the rules of mountaineering upon which he insisted so strongly—that of not undertaking any very difficult ascents when not in the best of health. He himself has given the mountaineer the watchword of 'caution,' and no one was more fully aware of the terrible penalty that the least deviation from the accepted rules for the avoidance of danger exacts from the climber. May this sad tragedy serve as a warning to other mountaineers."

Four routes up the peak have been dis-

covered, all of extreme difficulty. The first to be climbed was the Südweg in, 1890, by Robert Hans Schmitt and Johann Santner, a great part of the ascent being by the big couloir running from the summit ridge almost to the base, which now bears the name of the Schmitt Kamin. It was one of the most daring feats ever performed in the Alpine world, its difficulties bringing it close to the verge of the impossible. In his account of the climb for the *Oesterreichischer Alpenzeitung* for 1890, Schmitt wrote, "The climb is by far the hardest I have ever accomplished; who will fetch down our cards?" The following year the second ascent was made by a lady, Frau Immink, with Antonio Dimai and Giuseppe Zecchini.

The next route to be discovered was from the Langkofel Kar side, and was made in 1891 by Norman-Neruda, with Christian Klucker, up the excessively steep north side by a series of chimneys, and finally up one which owes its origin to a split in the mountain, which extends right through to the southern side, where it forms the Schmitt Kamin. His

ascent was made simultaneously with that made by Frau Immink up the Schmitt Kamin, and the two parties met on the summit.

The third route, the so-called Ostweg, or Daumenscharteweg, was discovered in 1891 by H. J. T. Wood, with three guides, and was from the south side up to the Daumenscharte, then up the wall of the "forefinger" and to the col, where the Schmitt Kamin ends. The Scharte can be reached also direct from the Langkofeljoch. The Daumenscharte route is the one now generally followed. Time from the Sellajoch about 3½ hours.

A fourth route, by the so-called "Westweg," was made in 1895 by Oskar Schuster and Friedrich Meurer.

GROHMANNSPITZE (10,207 feet) is separated from the Fünffingerspitze by the Fünffingerscharte, and is a huge block with steep solid walls towards the Sellajoch on one side and towards the circus of the Grohmann Glacier on the other. The climbing is difficult by all routes.

The first ascent was made in 1890 by Michel Innerkofler alone, from the Grohmannscharte

up the west face. This route is not often followed now, and though some five or six others have been accomplished, each possesses its own difficulties, so that there is none which can be called the "usual" route. The so-called "Enzensperger Weg" from the Fünffingerscharte by the E.N.E. ridge, and the Nordwand route, present the cleanest rock climbing and are the freest from falling stones, dangerous ice couloirs and wet slabs. Time for either from the Langkofel Hut, about 5 hours.

INNERKOFLERTHURM (10,073 feet) was named after the celebrated guide, Michel Innerkofler, who made the first ascent alone in 1880. Though difficult, it is the least difficult of the group, with the exception of the Plattkofel, and is climbed by the west face from the Zahnkofelscharte in about 3½ hours from the Langkofel Hut.

ZAHNKOFEL (9825 feet), a difficult climb but comparatively short. The first ascent was made in 1889 by the guide, Luigi Bernard, whilst prospecting in cloudy weather; after reaching the summit rather unexpectedly he

returned and led up Dr. L. Darmstädter and Hans Stabeler. The usual route now is from the Ostliche Plattkofelscharte direct to the peak. Time from the Langkofel Hut about 3 hours.

LANGKOFELKARSPITZE (9212 feet). — The rock ridge separating the Langkofel Kar from the Plattkofel Kar, which breaks out from the main horse-shoe-shaped ridge between the Grohmannspitze and the Innerkoflerthurm, culminates in a sharply-pronounced peak to which the name Langkofelkarspitze was given by its first climbers, and then sinks to the Langkofel Hut. The peak was first ascended in 1892 by Hans Lorenz, W. Merz and Victor Wessely from a point far in the Langkofel Kar, up a snow couloir high in the N.E. face and thence by chimneys and ledges to the peak. In 1895 it was climbed by H. Delago alone from the Grohmann Glacier. Both routes are difficult and take about 3½ hours from the Langkofel Hut.

PLATTKOFEL (south peak, 9744 feet, north peak, 9710 feet).—On the south-west side the

mountain slopes gradually towards the Fassajoch, and presents an easy way up, in striking contrast to all other peaks of the group. There is no account of a first ascent; it was probably climbed occasionally by hunters and herdsmen long before records were kept. From the Fassajoch (7535 feet) the route (red markings) leads first along a grassy ridge and over the long, easy but monotonous slopes, upwards in an easterly direction to a flat basin at the foot of the ridge between the peaks; the highest point can be reached either by making up to the ridge and approaching from the N.W., or by crossing the basin diagonally and attaining the summit from the S. Time from the Fassajoch about 2½ hours.

A better climb is obtained from the Plattkofelkar by the Oskar Schuster Steig and the east face.

PASSES.—The Sellajoch and the Fassajoch are well-known easy routes between the Grödnerthal and the Fassathal, the former passing on the east of the Langkofel group and the latter on the west. The Langkofel-

joch (8800 feet) is easily reached from the Langkofel Kar by a club path, which descends on the other side in zig-zags to the Sellajoch Hut.

There are high cols, which may be crossed between the various peaks, namely, the Fünffingerscharte, the Grohmannscharte, the Zahnkofelscharte, the eastern and the western Plattkofelscharte. The Fünffingerscharte is difficult; the Grohmannscharte is the highest and is extremely difficult; the Zahnkofelscharte and the eastern Plattkofelscharte are less difficult under good conditions.

(2) *Sella Sub-Group.*

The Sella group is in shape an irregular hexagon, bounded on the north by the route from Wolkenstein to Corvara over the Grödnerjoch; on the east by the new road from Corvara to Araba over the Campolungo saddle; on the south by the Dolomitenstrasse from Araba over the Pordoijoch; and on the west by the route from Canazei to Wolkenstein over the Sellajoch. The round tour is easy and interesting.

The approaches from the Brenner Railway, Cortina, Bruneck and the Fassathal are the same as those to the Langkofel group, from which it is only separated by the Sellajoch and the small valleys leading up to the latter.

This group, of all the Dolomite groups, is perhaps the least known to English climbers, a circumstance due probably to the aspect and character of the peaks. Its higher summits possess no strongly-marked outline, no pronounced ridge development, hardly any separate individuality. Rock teeth, towers, pinnacles and needles do not thrust themselves upon the notice of the casual passer-by; no "modeberg" fights for recognition in the recesses of the group, no reputation has been made out of its climbs. Viewed as a whole from the neighbouring valleys it presents to the observer a broad, massive, table-topped basic stock, with a solid outer wall of rock girdled with terrace bands, and without any great variations in the height of its upper edge. A closer examination, however, reveals many grotesque details just as in other groups, and

after scaling the encircling wall the usual characteristic Dolomite crags are found inside. The summits are ranged on three or four ridge chains more or less separated from each other, namely, the Boë ridge on the east, the Pisciadu ridge in the centre, and the Mesules ridge, with the adjoining Murfrait ridge, on the west, and as all rise from a great central plateau many of the climbs are both easy and short.

Nature having provided several openings in the wall, man, in the shape of the Bamberger Section of the D.O.A.V., has proceeded to construct paths through them, some with fixed ropes in the difficult places, and all leading to the Bamberger Hut (9425 feet), situated near the middle of the group. These openings are the Val de Mesdi (Mittagsthal), which commences near Collfuschg on the north-east, the Val Culea south of and close to the Grödnerjoch on the north, the Val Lasties near Canazei on the south-west, and the Pordoischarte near the Pordoijoch on the south. The paths, which are equally useful to the tourist and to the climber, are as follows:

CLUB PATHS IN THE SELLA

1. Up the Val de Mesdi direct to the Hut in about four hours.

2. The Pisciaduweg branches off to the right from the Val de Mesdi path after passing the zig-zags, and circling past the little Pisciadu See joins the path from the Val Culea and then that from the Val Lasties, and reaches the Hut by a roundabout but interesting route. Near the joining of the three paths there is a choice of routes, namely, either over the Zwischenkofel or by the so-called Coburgerweg, the latter being facilitated by fixed ropes.

3. The Val Culea route starts from the Grödnerjoch, and after ascending the Val Culea goes over the Sella plateau and the Bamberger Sattel; it is joined successively by the Pisciaduweg and the path from the Val Lasties before reaching the hut. At the head of the Val Culea a branch path on the left leads to the Pisciadu See and the Pisciadusee Hut (8530 feet—provisioned).

4. The Val Lasties path, which is the easiest of all, leaves the Dolomitenstrasse between the Pordoijoch and Canazei, passes by the

Roa huts, traverses the Val Lasties, and after joining the combined Pisciaduweg and Val Culea path, as mentioned above, reaches the hut. This path can also be reached from the Sellajoch by a path which joins it a little beyond the Roa huts.

5. A fifth way leads to the hut from the Pordoijoch over the Pordoischarte.

The climbs are most conveniently taken from the Bamberger Hut, but many can be taken equally well, or better in some cases, direct from the Grödnerjoch, Collfuschg, Corvara or Canazei. The map of the Langkofel and Sella groups referred to in the preceding section is equally serviceable for this section. It should be observed that some of the heights given hereafter are not fully established.

BOËSPITZE (10,342 feet), the highest summit in the group, is a dumpy, dome-shaped peak, and is one of the finest view points in the Dolomites. The first recorded ascent was by Paul Grohmann in 1864. It can be easily climbed from the Bamberger Hut in three-

quarters of an hour, or may be taken direct from the Pordoischarte without touching the hut, whilst finally there is a marked route from Corvara by the Crap de Mont, the Boë See and the Eis See. From the summit of the Boë other peaks in the ridge may be climbed without great difficulty, namely, the Cresta Strenta, the Eisseespitze, the Pezza Longhatta, the Neuner and the Vallonspitze.

ZEHNER (9564 feet), BOËSEEKOFEL (9547 feet) and PIZKOFEL (9274 feet). These three peaks, though on the main Boë ridge, cannot be reached by following it from the Neuner or the Vallonspitze (*see* above), but must be taken direct from the Val de Mesdi on the west or the Vallon on the east. The Zehner is a difficult peak which is climbed from either of the two valleys by way of the Moserscharte. The Pizkofel is also difficult, and is reached from the Crap de Mont on the east, while the Boëseekofel makes a continuation of the same climb.

PORDOISPITZE (8235 feet) is the most southerly peak of the Boë ridge, and is easily climbed in half an hour from the Pordoischarte. It

can be taken also from the Sellajoch, up the Val Lasties, through the so-called "langen Graben," a scree couloir on the right which contains snow and ice in its upper part and which leads to the Pordoischarte.

MESULES (9836 feet), the highest peak of the western or Mesules ridge, is an easy ascent of 1½ hours from the Bamberger Hut, and is a fine view point. From the Grödnerjoch it is reached by the Val Culea, the Val Chadin and the Gamsscharte. From Collfuschg it is reached by the Val de Mesdi, the Pisciaduweg and the Vallon di Pisciadu. The western Sella plateau, from which the Mesules rises, has other peaks which can also be combined with it in a round tour, namely, the Piz Rottice, Piz Beguz, Piz Gralba, Piz Selva and Piz Lasties. The Gamsburg and the Pisciaduseekofel in the same ridge but to the north of the Mesules are more difficult. The Murfraitspitze and the Murfraitthurm which adjoin the Mesules ridge are also difficult.

PISCIADU (9785 feet) is an easy climb. Reaching the Pisciadu See either from the Val

Culea or from the Val de Mesdi blue marks lead round the base of the peak to a little saddle and over easy rocks to the summit.

DENT DE MESDI OR MITTAGZAHN (9475 feet), in the Pisciadu ridge, is the most difficult and exposed climb in the whole group. The ordinary way is from the Bambergersattel up the west face, but several other routes have been made, all difficult. Time about 2 hours from the hut.

BAMBERGERSPITZE (9870 feet), another of the Pisciadu peaks, a somewhat difficult climb up the west face through a deep ice couloir which is sometimes dangerous on account of falling stones. The ascent is partly up the rock ridge and partly up the couloir, and finally over difficult rocks to the summit. Other routes have also been made. Time about 3 hours from the hut.

(3) *Geisler Sub-Group*

This name is commonly given to a scattered series of peaks lying between the upper Grödnerthal and Grödnerjoch on the south,

the Gaderthal on the east, the upper Villnösthal on the north, and the route from St Ulrich to the Villnösthal, over the Broglesscharte, on the west. Besides the Geislerspitzen proper it embraces the Puezspitzen, the Gardenaccia Alp, Rothspitzen, the Tschierspitzen and the Stevia Alp. The name is even extended sometimes to peaks and small assemblages of peaks north of the Villnösthal, such as the Peitlerkofel, the Plose or Telegraphspitze, and the Gabler.

Its approaches are much the same as those to the Langkofel and Sella Groups already described.

An early writer describes the Geislerspitzen as the wildest of all the Dolomites and pictures them as a series of "rhombohedrons, posts, sugar-loaves and fingers, towering perpendicularly and coloured grey, brown, yellow and red."

Two valleys penetrate the main mass, namely the Langenthal, leading north-east from Wolkenstein, and the Tschislerthal leading north-east from St Christina over the

Wasseralpjoch, or the Furcella della Roa, to Campil and on to the Gaderthal.

The Regensburger Hut (6725 feet—an inn in summer) is in the Tschislerthal, and may be reached in two hours from St Christina. The Puez or Ladinia Hut (8170 feet—provisioned) is on the Puez Alp, 3½ hours from Corvara and Collfuschg.

The relative sections of the Oesterreichische Spezialkarte are Zone 19, Kol. 5 and 6.

SASS RIGAIS (9930 feet).—First ascent, in 1878, by Dr. B. Wagner and Herr Niglutsch, with Giorgio and Battista Bernard. It is not a difficult climb, the rocks having been roped in places. The usual route is from the Regensburger Hut, over pastures and a constructed path to the Mittagscharte, and thence up the south face. A more difficult way, also from the hut, is up the Wasserrinnenthal and over the col between the Sass Rigais and the Furquetta. Time by either route about 3 hours.

FERMEDATHURM (9440 feet), a difficult and exposed rock peak, first climbed in 1887

by Dr. K. Schulz, E. T. Compton and T. G. Martin, with M. Bettega. The ascent is made from the Regensburger Hut, up the S.W. face. Still more difficult is the ascent up the N.E. face. Time by either route about 3 hours.

PUEZSPITZEN.—Three peaks, rising from the Puez Alp, the Westliche, the Mittlere and the Östliche, of which the Mittlere, 9615 feet, is slightly the highest. All are easily climbed from the Puez or Ladinia Hut in about 2 hours. They can be reached also from Wolkenstein by the Langenthal and a marked way to the Puez Alp.

TSCHIERSPITZEN, consisting of a close array of ten peaks, of which the Höchstespitze (8530 feet) is the highest and is easily reached in 1½ hours from the Grödnerjoch along a Club path.

OTHER PEAKS, difficult, are the Klein Fermedathurm, Villnöserthurm, Tschisler Odla, Gran Odla, Grosse Furquetta and Kleine Furquetta, all reached from the Regensburger Hut; the Sass Songher from Collfuschg; and the Rothspitzen from the little Danter Coppiesthal to the east of Wolkenstein. Easy walks

are the Plose and the Gabler from Brixen, the Raschötz from St Ulrich, and the Peitlerkofel from Villnös or from the Franz Schlüter Hut, near Campil.

PASSES.—Easy passes from the Regensburger Hut are the Mittagsscharte (8570 feet) to the Villnösthal, the Wasseralpjoch and the Furcella della Roa to the Campilthal, the Furcella de Forces de Sielles to the Puez Hut. The Puezjoch leads from the Puez Hut to the Campilthal, and the Ciampatschjoch from the Langenthal to Collfuschg.

ROSENGARTEN GROUP AND SCHLERN

Although Churchill visited this district so far back as 1863, and even ascended the Ciampedia, the Rosengarten peaks did not become known as climbs till 1872, when C. C. Tucker and J. H. Carson made the first ascent of the Kesselkogel, following it up with the first ascent of the Rosengartenspitze in 1874. It was thus the last of the groups to be opened up, coming somewhat later than the Cortina peaks, the Marmolata, the Sexten, the Langkofel and the Pala groups.

Though not well known to English climbers, notwithstanding the English names encountered in its early history, the Rosengarten group is first favourite with German and Austrian mountaineers. This is not surprising, for even English climbers have described it in glowing terms, Mr E. A. Broome, for instance, being of opinion that it "provides, more than any other group, sporting and sensational hours for mountaineers, and fantastically beautiful scenes and colour effects for less adventurous travellers;" whilst Mr Coolidge terms the peaks "ghostly and hideously splendid pinnacles, *belles horreurs*." The fine range of cliffs as seen from Botzen resolves itself upon nearer acquaintance into a massif with many limbs, whose bold, slender towers and needles invite the admiration of the tourist and challenge the skill of the cragsman.

It is conveniently reached from Botzen by road to the Karer See; from Blumau, a station on the Brenner Railway, up the Tierserthal to Weisslahnbad and the Grasleiten Club Hut; from Waidbruck, also on the Brenner Railway,

by road to Seis and the Schlern; from Cortina by the Dolomitenstrasse over the Pordoijoch to Campitello and the Costalunga Pass; from St Ulrich over the Seiser Alp to the Schlern.

From the Karersee (or Costalunga) Pass on the south, which separates this group from the Latemar, the Rosengarten stretch at first due north in a long chain, beginning with the Punta del Masaré, to the Coronelle, where an eastern ridge leads to the Mugonispitzen and peters out in the Ciampedia. From the Coronelle the northern ridge is continued to the Rosengartenspitze and the Vajolet Thürme, and then with many gaps to the two Valbuonkogel, the Grasleitenspitzen and the Rotherdspitze, from which a long ridge runs east to the Rosszähne and west to the Schlern. To the east of the Rosengartenspitze we have the semi-independent Larsec group, on the north of which is the Kesselkogel, whose ridge is continued north through the Antermojakogel to the Molignon.

The district is now well supplied with Club Huts, all of which are inns in summer, namely,

the Kölner Hut (7630 feet), about 2½ hours from Welschnofen and the Karersee Pass, for the southern peaks of the group; the Vajolet Hut (7430 feet), at the foot of the Rosengartenspitze and the Vajolet Thürme, for the central peaks; the Grasleiten Hut (7100 feet), finely situated at the head of the Tschaminthal, for the northern peaks and the best-known easy passes; and the Oestertag Hut at the foot of the Teufelswandspitze; whilst on the Schlern plateau are the Schlern Club Hut and the Schlern Inn. Hardly too far off for convenience of climbing are the hotels at the Karersee, the Costalunga Pass, Welschnofen and Weisslahnbad.

A good map of the district is published by the D.O.A.V., obtainable at the usual price for the Club's maps, namely, K4.70, or half-price to members applying through their Sections.

Climbs in the Rosengarten Group

Kesselkogel (9846 feet), the highest summit of the group, is a rock peak of no great difficulty. It was first climbed in 1872 by

C. C. Tucker and J. H. Carson, with A. Bernard, from the north-east, a route which is still often followed. The more usual and easier ascent, first made by Johann Santner alone in 1872, is from the south, starting from the Grasleiten Pass (8530 feet). Following the Antermoja Pass path till it goes off in windings to the right, the easily visible traces of former climbers lead to the left, and up the characteristic gullies, ledges and terraces by well-worn tracks to the summit in an hour and a half from the pass. From the peak there is a grand view over a large part of the Dolomite region.

ROSENGARTENSPITZE (9781 feet) is the second highest, the best known, and most-frequented peak in the group. It was first climbed in 1874 by C. C. Tucker and J. H. Carson, with François Devouassoud of Chamonix. The west or Botzen side of the main Rosengarten chain is in general precipitous and without spurs, the usual ascents being therefore made from the east; but in the case of the Rosengartenspitze this order is reversed, the west face being the ordinary route and the

east the most difficult. Starting from the Vajolet Hut the ordinary route lies up the ravine and scree slopes of the Gartl to the Santner Pass (8880 feet) in about two hours, and from the pass up the steep north-west wall first by a narrow chimney and then over rocks to the ridge, and so to the peak in another 1½ hours. The climbing is good and of interesting difficulty. The Santner Pass can be reached from the Kölner Hut as well as from the Vajolet Hut.

The ascent by the south ridge from the Rosengartenscharte was first made in 1877 by Johann Santner and Gottfried Merzbacher.

The east route is not only the most difficult of all but is also one of the longest and most difficult of the Dolomite climbs. It was first made in 1896 by J. S. Phillimore and A. G. S. Raynor, with Antonio Dimai and Luigi Rizzi.

The VAJOLET THÜRME are six in number, divided into two groups of three, a north group and a south group, the towers of each group running from a single rock base, and the two bases being separated from each other by a

deep unnamed cleft. Norman-Neruda cites these towers in his ironical inquiry, When is a tower a peak and not a mere spur? In 1884 only three Vajolet towers were recognized; a few years later there were four, and then five, and now there are six, from which he humorously concludes that a tower is only an independent peak when it is very difficult to climb. By this test the Vajolet towers all pass with honours.

The three towers of the northern group are known as the Hauptthurm, (9256 feet) the Ostthurm (9230) and the Nordthurm (9220), and with the exception of the last-named are very difficult. The Hauptthurm was first climbed in 1882 by Gottfried Merzbacher with Giorgio Bernard; the other two in 1892 by Dr. Hans Helversen with Hans Stabeler.

In traversing the three summits the Nordthurm is taken first, and then the other two successively from the little scharte between the Hauptthurm and the Ostthurm.

The three towers of the southern group have been named after their first climbers, and are

among the half-dozen most difficult rock peaks in the Dolomites. The Winklerthurm (9185 feet) was first climbed in 1887 by G. Winkler alone; the Stabelerthurm (9203 feet) in 1892 by Dr. Hans Helversen with Hans Stabeler; and the Delagothurm (9121 feet) in 1895 by Hermann Delago alone. The three can be traversed from west to east, that is in the order Delago, Stabeler, Winkler, or in the reverse order from east to west.

ROTHWAND (9215 feet) is the highest and most-frequented peak of the southern Rosengarten group, and has a fine view. The usual ascent is from the Vajalon Pass, which is easily reached in three hours from the Karer See, and then along the north ridge, first on its east side and then on its west, by a visible track to the summit in an hour from the pass. By this route the climb is easy. The first ascent by the difficult west face was made in 1906 by E. A. Broome and H. K. Corning, with Antonio Dimai and Agostino Verzi.

GROSSER VALBUONKOGEL (9255 feet) was first ascended in 1884 by Johann Santner and

Gottfried Merzbacher. The climb from the south is interesting. A little to the north of the Grasleiten Pass a broad scree couloir opens out and leads in half an hour to the col between the Grosser and the Kleiner Valbuonkogel; from the col easy rocks lead to the summit ridge, along which there is a pleasantly-difficult climb to the peak, one hour from the col. Another route, from the north, via the col between the Grosser Valbuonkogel and the Östliche Valbuonköpfe is more difficult.

The KLEINER VALBUONKOGEL (9170 feet) is a short and easy climb up the screes and rocks west of the Grasleiten Pass, or from the col between the Grosser and the Kleiner.

The couloirs opening into the big gully leading up from the Grasleiten Kessel to the pass are perplexing and easy to mistake. Norman-Neruda relates that in 1894, purposing to ascend the two Valbuonkogel, his party went up the wrong couloir and unintentionally made the first ascents of the two Valbuonköpfe.

The GRASLEITENSPITZEN.—North of the upper Grasleitenthal and overlooking the hut

is the Grasleiten ridge, containing three difficult climbs, namely, the Grasleitenthurm (8390 feet), the Westliche Grasleitenspitze (8766 feet), and the Mittlere Grasleitenspitze (8875 feet).

The GRASLEITENTHURM, which is perhaps the most difficult of the three, was first climbed in 1894 by Norman-Neruda and L. Treptow, with Anton Mühlsteiger, the route being via the Junischarte (between the Thurm and the Westliche), which is reached either by the difficult chimney visible from the hut or (somewhat easier) by the face. Time from the hut about 2½ hours.

The WESTLICHE GRASLEITENSPITZE, likewise difficult from all sides, was first climbed in 1889 by Dr. L. Darmstädter, with Hans Stabeler and Luigi Bernard, by the south face, nearly up to the col between the Westliche and the Mittlere, and then by the difficult east ridge. Time from the hut about 3 hours. Other routes are by the north face from the Alpenklippenthal, and by the west arête from the Junischarte.

The MITTLERE GRASLEITENSPITZE is the

highest peak in the ridge and was first climbed in 1885 by Johann Santner alone, the route being the same as for the Westliche to a point about 100 feet below the col there mentioned, and then to the right over difficult rocks and ledges. Time from the hut about 3 hours.

The NORDÖSTLICHE GRASLEITENSPITZE (8540 feet) is an easy half-hour's scramble over scree and rocks from the southern Molignon Pass.

The traverse of all three Spitzen from the Junischarte to the Molignon Pass is a fine expedition, but is both long and difficult.

The MOLIGNON RIDGE, which forms the eastern buttress of the Grasleiten Kessel, has three peaks. The Nordlicher (8806 feet), called Alpenplatten in the D.O.A.V. Map, is not difficult from the Duronthal. The Nordwestlicher (9120 feet) is an easy hour's walk by a Club path from the northern Molignon Pass, and is visited for the sake of its fine view. The Mittlere (9355 feet) is a somewhat difficult climb via the Antermojakogelscharte.

The whole ridge can be traversed from the Nordlicher, though between the Nordwest-

licher and the Mittlere it is very narrow and broken up, besides being rotten in places. If the climber has not had enough when he reaches the central peak he can continue the expedition over the Antermojakogel, the Seekogel and even the Kesselkogel.

The SCHLERN.—The triangular massif of the Schlern is severed on the west by the Schlerngraben, on the south side of which are the Tschafatschberg, the Mittagskofel, the Nikelberg and the Tschavon, all somewhat tedious walks or rough scrambles up the openings on the Tiers side, or from the Schlerngraben itself. On the north the massif is broken by the deep Seiserklamm, on the western side of which are the Gabelschlern and the Jungschlern, whilst on the eastern side are the Burgstall, the Euringerspitze and the Santnerspitze. To the highest point, the Altschlern or Petz (8402 feet), there are good paths from the north, south, east and west, none of which involve any climbing. The SANTNERSPITZE (7920 feet) is extremely difficult, and was first climbed by Johann Santner alone in 1880. The EURINGER-

SPITZE (7860 feet), equally difficult, was first climbed by Gustav Euringer, with Giorgio Bernard, in 1884.

The LARSEC GROUP, on the north side of the Vajolet Thal, derives its name, according to Norman-Neruda, from the little lake called in Ladin Lag-sec, Italian, Lago secco. The climbs are not important and for the most part not difficult. The CIMA DI LARSEC (9491 feet) is the highest peak in the group and is easily reached over scree slopes in half an hour from the Antermoja Pass. The Scalieretspitze (9480 feet) and the Cima di Lausa (9440 feet) are also short and easy scrambles from the same pass. The GRAN CRONT (9140 feet) is an interesting climb from the Larsecthal, first made in 1882 by J. Stafford Anderson with Santo Siorpaes and G. Ghedina. Time from the Vajolet Hut about 3½ hours.

The LATEMAR GROUP is on the south side of the Karer See or Costalunga Pass, and seen from the north consists of a series of rock towers divided by the Grosse Latemarscharte.

On the east of the scharte is the Ostgipfel or

Oestliche Latemar (9166 feet), a tolerably easy climb from the south, first by a club path to the Kleine Latemarscharte and the Col Canon, and then along the southern slopes just under the arête, and over an unnamed peak to the summit. Time from the hotel about 4½ hours.

On the west of the scharte are the Latemar Thürme, the highest of which is the Diamantidithurm (9491 feet), and the next highest the Christomannos or Oestlichethurm (9337 feet). These and the other towers can be ascended from the south without great difficulty, either direct from the Val Sorda or via the Grosse Latemarscharte and the southern slopes. The ascent from the north side, whether up the couloir to the Grosse Latemarscharte or by the Diamantidikamin is very difficult and usually dangerous from falling stones; that by the Rothlahnscharte is less difficult. In 1908 E. A. Broome and H. K. Corning, with Agostino Verzi and Dibona, made a new route up the Christomannos by the north face.

OTHER PEAKS.—In addition to the foregoing there are many other climbs, some difficult, such as the Tscheinerspitze (9155 feet), Teufelswandspitze (8933 feet, Laurinswand (9250 feet), Vajoletspitze (8691 feet), Antermojakogel (9490 feet), and the Tschaminspitzen (9051 feet); others easy, such as the Coronelle (9165 feet) from the Vajoletthal or from the Vajolon Kessel, the Seekogel (9210 feet) from the Antermojathal, the Rotherdspitze (8700 feet) from the Schlern plateau.

PASSES.—There are several passes across the main chain, easy so far as climbing goes but sometimes fatiguing, which can be traversed from the Karer See, Welschnofen or Tiers on the west side to the valleys on the east side, namely, the Vajolon Pass, Tschagerjoch Pass, Vajolet Pass, Purgametschjoch and Valbuon Pass. From the Grasleiten Hut the Grasleiten Pass leads to the Vajoletthal and Vajolet Hut, the Molignon Pass to the Grödnerthal, and the Mahlknechtjoch to Campitello, whilst the last-named place can also be reached

by the Antermoja Pass combined with the Duron Pass.

The following high passes across the main chain involve climbing of varying difficulty: the Baumann Pass, Rosengartenscharte, Santner Pass and Laurins Pass. The Antermojakogelscharte and the Kesselkogelscharte are high passes between the Grasleitenthal and the Antermojathal, difficult, and sometimes dangerous on the western side on account of falling stones.

PALA GROUP

The PALA or PRIMIERO GROUP is the southernmost group of the Dolomites, situated about the Val Primiero. Without any very definite boundaries it is roughly contained in the quadrilateral formed by Primiero on the north, Agordo on the east, Forno di Canale on the north and Paneveggio on the west.

It is a group which, like the Rosengarten, provides, by its astonishing rock pinnacles and cliffs, a fine field for the mountaineer, demanding not only climbing skill but a large

meed of the capacity for finding one's way, particularly in the mists which are wont to gather upon the Pala plateau. Situated as they are on a popular route from the Dolomites to Venice, San Martino and Primiero receive yearly an increasing stream of tourists and climbers, most of whom make the easy ascent of the Rosetta, famed for its view, while others aspire to the Cimon della Pala, the celebrated "Matterhorn of the Dolomites." To the true cragsman this corner of the Dolomites offers attractions which are not thus easily exhausted. The wildness of the region, the bold outlines of its peaks, the sharpness of its fantastic needles, the precipices of the western face of its central ridge, and the wilderness of its summits, with sides steep as those of a cathedral, give to this group what Leslie Stephen calls "a double measure of enchantment," and make it the happy hunting-ground of the climber.

Norman-Neruda remarks that "one of the attractions of climbing in the Dolomites is the fact that most of the ascents are short enough to render it possible, even in unsettled weather,

to enjoy many a pleasant day's scramble instead of being obliged, as is the case with longer expeditions in Switzerland and elsewhere, to let many a fine day slip by in the weary wait for absolutely safe weather, which so rarely comes." Such climbs are found in all the Dolomite groups, but nowhere in greater profusion than around San Martino, Primiero and the club huts of the Pala group. It adds to the interest that many of the first ascents of the important peaks were made by Englishmen, among whom was Leslie Stephen, whose article on the "Peaks of Primiero" in the *Playground of Europe* has already been referred to.

The group possesses several small glaciers, namely the Fradusta Glacier, the Travignolo Glacier, the Fiocobon Glacier, and the Pala di San Martino Glacier, all of them of trifling extent.

Club huts are plentiful. The Rifugio alla Rosetta (8530 feet—inn in summer), on the Rosetta Pass, three hours from San Martino; the Pravitale Hut (7665 feet—inn in summer), at the head of the Val Pravitale (or Pradidale),

4½ hours from Primiero, five hours from San Martino via the Rosetta Pass and the Fradusto Pass, or four hours via the Passo di Ball; the Canali Hut (5640 feet—inn in summer) at the head of the Val di Canali, 3½ hours from Primiero; and a new hut, the Rifugio du Mulaz, is in course of construction. San Martino di Castrozza and Primiero (Fiera di Primiero) are excellent centres.

The relative sections of the Oesterreichische Spezialkarte are Zone 20, Kol. 5 and 6, Zone 21, Kol. 5 and 6.

Climbs in the Pala Group.

Cimon della Pala (10,450 feet) is the second highest and the most popular peak in the group. It is an extremely difficult climb, first made in 1870 by E. R. Whitwell, with Christian Lauener of Lauterbrunnen and Santo Siorpaes, over the Travignolo Glacier and by the north face. This route is dangerous on account of falling stones and has now been supplanted by one from the south-east, discovered in 1889 by Dr. Darmstädter with Hans Stabeler and

Luigi Bernard, a route which has since been facilitated by the erection of the Rifugio alla Rosetta and the fixing of a wire rope in the most difficult part of the ascent. From the hut the route leads into the upper part of the Pian delle Comelle and then up the Valle dei Cantoni, which ascends to the Passo di Travignolo. Thence over good rocks by chimneys and terraces to a gap under a reddish brown tower, from where the summit ridge can be seen and the further route descried by the fixed rope that hangs there. Past the fixed rope the way is over the arête. Time from the hut about four hours.

There are also difficult routes by the north-west arête and by the south face.

Cima di Vezzana (10,465 feet) is the highest peak in the group, and is separated from the Cimon della Pala by the snow-covered Passo di Travignolo. It is less difficult than the Cimon, and was first climbed in 1872 by D. W. Freshfield and C. C. Tucker without guides. The route lies via the Passo di Travignolo, which can be reached as described above from

the Rosetta Hut, or direct from San Martino by the Passo Bettega. From the pass the route takes a northerly direction over snow, rocks and ledges to the col on the right of the summit, and then straight up the face. Time, about four hours from the hut.

ROSETTA (8990 feet) is an easy half-hour's climb from the Rosetta Hut over the broad, moderately-inclined, scree-covered eastern slopes.

PALA DI SAN MARTINO (9830 feet), a difficult peak first climbed in 1878 by J. Meurer and Count Pallavicini with Santo Siorpaes, Arcangelo Dimai and M. Bettega. The usual route from San Martino is by the Val Roda and the Pala Glacier (which latter, as well as the tongues running up to the rocks, frequently involves step-cutting), and up the north side. Time from San Martino about 5 hours.

Other difficult routes lie over the north-west arête and up the south face.

CIMA DI BALL (9131 feet), first ascended in 1869 by Leslie Stephen alone. The climb, over snow and good rocks, is not difficult.

From the Pravitale Hut (or direct from San Martino) the route is via the Passo di Ball and the scree-, or it may be snow-couloir, which comes from the col between the Cima di Ball and the Cima di Val di Roda; up to the col and then left by ledges and ribs to the north-west arête and the summit. Time from the hut, about 2½ hours.

SASS MAOR, or SASSO MAGGIORE (9240 feet), a very difficult peak first climbed in 1875 by C. C. Tucker and H. A. Beachcroft with François Devouassoud and Battista della Santa. On the same ridge, and separated from it by a col, is the CIMA DELLA MADONNA (9025 feet), the two peaks being referred to by Leslie Stephen as "those astonishing twins." "More singular towers of rock," he says, "are scarcely to be found in the Alps," towering upward "in daring disregard of the laws of equilibrium." The ascent commences up the Valle della Vecchia between the Cima di Ball and the Sass Maor, and rounding to the scree basin on the south between the Sass Maor and the Cima Cimedo or Cimerio the route makes up

to the deep recess under the col between the twin peaks and finally up to the col itself. From here either peak can be reached by difficult and exposed climbing. The Cima della Madonna is the harder of the two, and was first ascended in 1886 by Georg Winkler and A. Zott. Time from San Martino for either peak about 6 hours.

CIMA DI FRADUSTA (9610 feet), a comparatively easy peak, first climbed in 1869 by Leslie Stephen with Colesel Rosso, a guide quaintly described by Stephen as possessing "every virtue that a guide can have consistently with a total and profound ignorance of the whole theory and practice of mountain climbing." The usual route is from the Rosetta Hut to the south-east, over the plateau to the Fradusta Glacier, and up the snow to the peak. Time from the hut, about two hours. An alternative route to the glacier is from the Canali Hut via the Passo di Canali and the Forcella di Sopra.

OTHER PEAKS.—The foregoing are the most important and best-known climbs but the whole group numbers some fifty or more separate

summits. Close to San Martino are the Figlio della Rosetta and the Cima di Cuseglio, both good climbs, which can easily be accomplished before mid-day. In the northern part of the group are the Cima di Fiocobon or Fuocobono, Cima dei Bureloni, Cima del Mulaz and many others; whilst to the south are the Cima di Canali, Cima di Pradidali, Cima dei Lastei, and far to the east, separated from the main mass by the Val di Canali and the Val Angoraz, are the Croda Grande, Pala della Madonna and Monte Agner.

PASSES.—The huts are connected by easy and attractive passes and marked paths, namely the Fradusta or Pravitale Pass (8365 feet) between the Rosetta Hut and the Pravitale Hut; the Pala plateau, Forcella di Sopra and Passo di Canali (8190 feet);—or alternatively the Forcella di Miel (8326 feet) and the Passo di Canali—between the Rosetta Hut and the Canali Hut. The Pravitale Hut can be reached from San Martino direct by the Passo di Ball (8040 feet).

Of the passes into the neighbouring valleys

the most important are the Rosetta Pass (8375 feet), combined with the Comelle Pass (8507 feet), which lead from San Martino to Garès and Forno di Canale by the right side of the Val delle Comelle and along the Alp Val Buona, a route which is difficult under certain conditions of the snow in the upper part of the Comelle gully.

CHAPTER XVII

THE FLORA OF THE DOLOMITES

THE region of the Dolomites is one of peculiar interest to the botanist; it possesses most of the more familiar Alpine plants, and has, in addition, a number of species which are found only in the Dolomitic district and seem to be peculiar to the Dolomitic rocks.

It would be impossible to give here a complete list of the flora to be found in the Dolomites, and we propose, therefore, to include, firstly, those flowers and plants which are confined mainly to South Tyrol, and secondly, those which are more particularly characteristic of the area known as the Dolomites, with an indication of the locality in which they may be found.

A distinguished botanist, writing of the Swiss flora, has made some observations which apply equally to the flowers to be found in the Dolomite region. "The Alpine flowers," says the late Professor Hulme, "at once impress us

from the brilliancy of their colour and from the great masses in which they are often found. This intensity of colour is a characteristic of many genera that are specially Alpine, but it is by no means limited to these, for we may often find that species common enough on a lower level, such, for example, as the Eye-bright, assume an added brilliancy of colouring and flowers of larger size when encountered on higher ground. It is suggested, and there would appear to be much cogency in the theory, that this increased size of the flowers and their richer colour arise from the need of attracting the insects that assist in their fertilization, and that as these soaring butterflies or energetic bees are much fewer in number at the higher elevations a competition arises among the plants for their services, and those, therefore, that develop the most attractive appearance and provide the richest entertainment fare the best."

The best time to visit any Alpine district, from the botanical point of view, is naturally the early summer; by August, or late July, many of the flowers are over, and of those that

are still in bloom great numbers fall victims to the frugal hay-maker. The question of altitude, however, enters largely into consideration, and even in the latter part of July and the beginning of August, though the lower slopes of the mountains may be comparatively sparsely decked with floral beauty, in the higher regions one may meet with a good many fine specimens which have been but recently released from their covering of snow.

The characteristic referred to by Professor Hulme of the great masses in which the Alpine flowers are found is distinctly noticeable in the Dolomite regions at almost any time during the summer. No one who has not seen those slopes of brilliant colour—a whole hill-side aflame with orange lilies—a field of hemp which trembles into a delicate blue as the wind sweeps over it—a pink tract of ragged robin—would believe that one could meet with such extraordinary masses of vivid colouring.

On the other point mentioned by the same authority, viz., the brilliancy of colour found in Alpine plants, it may be of interest to note

Mr Ball's remarks in his Introduction to the *Alpine Guide.* "If we examine individuals of the same species," he says, "growing at different heights, we find that with increasing altitude there is generally a deepening of the tints of the flowers; for instance, the light-blue of the forget-me-not becomes deeper, the yellow of hawkweed tends towards orange. . . . In Alpine flowers there is a larger percentage of the colours corresponding genetically to high organization than there is in the lowland. For instance, the yellow of the lowland primrose and cowslip is supplemented by the violet tints of several species in the Alps. There is a pink-flowered Alpine saxifrage in addition to the ordinary yellow-and-white flowered species. An orange-red Alpine hawkweed contrasts with the paler yellow lowland species. There are many flowers which are violet, or brilliant sapphire, or deep ultramarine (*Campanula, Phyteuma, Saussurea*); the gentians vary in their different species from yellow, whitish green to deep yet vivid blue; the speedwells (Veronica) from pink to

sapphire, with a central spot, white or yellow, fringed with orange or vermilion. Frequently, too, the Alpine flowers have stronger scents, and pour out more honey than their lowland allies."

Of the particular localities in the Dolomite region which are peculiarly rich in botanical treasures the Schlern undoubtedly takes the first place; it is a spot which appears to be the favourite of Nature, for besides its wealth of flora it is of peculiar interest to the geologist. The Seiser Alp in the immediate neighbourhood is a good hunting-ground for the botanical enthusiast, and the Pusterthal can also boast of several rare species of Alpine plants. Other places of peculiar interest from the botanical point of view are the environs of Botzen, the Etschthal, Landro in the Höhlensteinerthal, the Sextenthal, the Ampezzothal, Feltre, the Val Sugana, the Fassathal, Fleimsthal and Fedaja Pass. Writing of the last-named region, Mr Churchill says, "The upper basin was a natural flower-garden, where every colour had its representatives, and even the

larger blocks scattered on its surface became, through the luxuriance and variety of the plants growing upon them, miniature gardens in themselves. *Pinguicula grandiflora*, with *Pyrola uniflora*, and *Epipactis rubiginosa*, were frequent on the ascent, as also *Senecio abrotanifolius;* and, on rocks, *Achillea Clavenæ*. In the upper basin *Sempervivum wulfeni, Pedicularis verticillata, tuberosa*, and *Fasciculata (?), Anthemis alpina, Pyrethrum cerato-phylloides, Hieracium villosum, Senecio Doronicum, Chrysanthemum montanum, Oxytropis pilosa, Primula longiflora, Myosotis alpestris*, with *Gentiana nivalis, tenella* and *utriculosa* were among the more interesting species." Of the Pozzathal, a valley which branches off from the Fassathal to the east, the same writer says, "I was detained some time in this apparently sterile region by the abundance of its botanical treasures, which lay closely sprinkled about, but their minute proportions produced no effect even upon the near landscape. Among the more interesting were, *Pedicularis asplenifolia, Eritrichium*

nanum, Papaver pyrenaicum, Primula glutinosa and *minima, Androsace obtusifolia, Chamejasme* and *glacialis, Phyteuma pauciflorum, Anthemis alpina, Potentilla nitida, Soldanella Pusilla, Saxifraga androsacea* var. *trifida,* with *Saxifraga mucoides* var. *atropurpurea,* and *Ranunculus glacialis.*"

In giving our first list of the plants to be found more particularly in South Tyrol it should be understood that these are not necessarily confined to that district, or are not to be met with in other parts of the Alps, but merely that they are more commonly met with in South Tyrol than in other districts; frequently the particular variety named is more or less peculiar to this region, while other more common species may be found elsewhere. As far as possible the English name of the species is added.

Ranunculaceæ	*Thalictrum aquilegifolium alpinum*	Meadow rue
	Thalictrum aquilegifolium subalpinum	
	Anemone baldensis alpina	Alpine anemone
	Ranunculus Seguieri	Buttercup
	Ranunculus bilobus	

LIST OF FLOWERS

Ranunculaceæ	*Pæonia officinalis*	Peony
Cruciferæ	*Arabis saxatilis*	Rock cress
	Cardamine asarifolia	Bitter cress
	Dentaria intermedia	Coral root
	Cochlearia alpina	Scurvy grass
Violaceæ	*Viola cenisia* (?)	Pansy
	Viola heterophylla	
Silenacræ	*Dianthus speciosus*	Pink
	Dianthus alpestris	
Alsineæ	*Alsine rupestris* (var. *cherlerioides*)	Sandwort
	Moehringia glaucovirens	
	Arenaria Huteri	
	Sagina glabra	Pearl-wort
Hypericineæ	*Hypericum Coris*	St John's wort
Geraniaceæ	*Geranium argenteum*	Cranesbill
Leguminosæ	*Cytisus radiatus*	Broom
Papilionaceæ	*Trifolium noricum*	Trefoil
	Astragalus depressus	Milk vetch
	Oxytropis velutina	
	Oxytropis lapponica	
	Onobrychis montana	Sainfoin
Rosaceæ	*Aremonia agrimonioides*	
Saxifragaceæ	*Saxifraga arachnoidea*	Saxifrage
	Saxifraga petræa	
	Saxifraga subintegra	
	Saxifraga Hostii	
	Saxifraga caesia	
	Saxifraga Burseriana	
Crassulaceæ	*Sedum anacampseros*	Stonecrop
Umbelliferæ	*Bupleurum petræum*	Hare's ear
	Libanotis gracilis	
	Ligusticum Seguieri	Lovage
	Malabaila Golaka	
	Peucedanum Rablense	Hog's fennel
	Laserpitium Gaudini	
Rubiaceæ	*Galium austriacum*	Bedstraw
Compositæ	*Artemisia nitida*	Wormwood
	Leucanthemum heterophyllum	

Compositæ	*Senecio uniflorus*	
	Senecio cacaliaster	
	Cirsium montanum	Thistle
	Cirsium carniolicum	
	Centaurea cirrhata	Knapweed
	Hieracium multiflorum	Hawkweed
Campanulaceæ	*Phyteuma comosum*	Rampion
	Campanula Raineri	Campanula
	Campanula petræa	
	Androsace imbricata	
	Androsace Haussmanni	
	Androsace carnea	
Primulaceæ	*Primula Venusta*	Primrose
	Primula spectabilis	
	Primula tiroliensis	
	Primula œnensis	
	Primula Facchinii	
	Primula pumila	
Plantagineæ	*Plantago fuscescens*	Plantain
	Pœdarota Bonarota	
	Pœdarota Ageria	
Scrophulariaceæ	*Euphrasia tricuspidata*	Eyebright
	Pedicularis acaulis	Lousewort
	Pedicularis gyroflexa	
	Pedicularis comosa	
Thymeleaceæ	*Daphne petræa*	Laurel
	Daphne Laureola	
Liliaceæ	*Gagia Liottardi* (var. *intermedia*)	Star of Bethlehem
Naiadeæ	*Potamogeton marinus*	
Cyperaceæ	*Carex baldensis*	Sedge
	Carex fœtida	

The second list is of those plants which are to be found more particularly in the Dolomite region, that is to say, the district which has been defined in the opening chapter of this

book; we may add here that while in some cases it is true that the flower or plant is to be found only in the locality named, in most instances the inclusion of the species in this list indicates that it is to be met with in the district mentioned, but is not necessarily confined entirely to that region.

Draba Pacheri	Etschthal
Draba nivea	Schlern
Draba intermedia	Schlern
Viola Thomasiana	Pusterthal
Silene Pumilio	Alpine chain east of the Schlern
Alsine biflora	Seiser Alp
Moehringia sphagnoides	Botzen
Arenaria Arduini	Feltre
Cerastium mixtum	Pusterthal
Astragalus purpureus	Schlern, Predazzo
Saxifraga atropurpurea	Schlern
Saxifraga exarata	Dolomites generally
Saxifraga Facchinii	Seiser Alp, Rosengarten, Fassathal
Saxifraga Hohenwartii	Schlern
Saxifraga diapensioides	Etschthal
Saxifraga squarrosa	on Dolomite rocks
Saxifraga Burseriana	on Dolomite rocks
Saxifraga tiroliensis	Schlern
Sempervivum acuminatum	Botzen
Sempervivum Mettenianum	Botzen
Sempervivum dolomiticum	Pusterthal, Fassathal
Galium margaritaceum	Landro
Cirsium fissum	Pusterthal
Cirsium Haussmanni	Botzen
Cirsium heterophylloides	Pusterthal

Cirsium Pusteriacum	Pusterthal
Cirsium spinossimoides	Pusterthal
Cirsium tirolense	Sextenthal
Cirsium tryphilinum	Pusterthal
Hieracium Laggeri	Fassathal
Hieracium absconditum	Pusterthal
Hieracium Trachselianum	Pusterthal
Hieracium Epimedium	Pusterthal
Hieracium fuliginatum	Pusterthal
Hieracium Kerneri	Pusterthal
Hieracium nothum	Pusterthal
Campanula Morettiana	Fassathal, Flemisthal
Campanula Haussmanni	Seiser Alp
Androsace obtusifolia x lactea	Seiser Alp
Primula tiroliensis	on Dolomite generally
Soldanella Gauderi	Sextenthal
Pedicularis elongata	Ampezzothal
Pedicularis Hacqueti	Val Sugana
Alnus corylifolia	Pusterthal
Salix retusioides	Sextenthal
Erythronium dens-canis	Val Sugana
Carex rigida	Schlern
Carex ornithopodioides	Schlern
Avena lucida	Fassathal
Koeleria hirsuta	Schlern
Festuca Breunia	Fassathal
Woodsia glabella	Schlern, Sextenthal

CHAPTER XVIII

THE GEOLOGY OF THE DOLOMITES

WE have already remarked that, from the point of view of the geologist, the region of the Dolomites is one of peculiar interest; and, indeed, this is but stating the case mildly, for, as a matter of fact, these mountains have formed the subject of discussion, and even fierce controversy, among scientists for many years. From time to time various theories and speculations have been advanced, and have been upheld and attacked with the vigour which seems characteristic of the scientific man as well as the theologian. It seems, however, that even now no one solution has received universal acceptance, and we can only pretend to set forth the different views without assuming to pass any judgment. By far the most exhaustive and complete account is contained in Mr Churchill's *Physical Description of the*

Dolomite District, to which the reader may be referred for fuller details than can be given here.

It was in 1822—according to Mr Churchill—that Von Buch first directed attention to the Dolomites of South Tyrol. In a series of letters he propounded the theory that these mountains were of volcanic origin, and had been converted from carbonate of lime into dolomite by the vapour of magnesia, evolved from the molten volcanic rocks below, and penetrating the limestone above. This led to a great deal of discussion, but the theory was finally disposed of by the chemists, who showed that it was practically impossible for magnesia to be produced in a state of vapour.

Baron Richthofen's hypothesis, on the other hand, has of late years been accepted by leading geologists, and may be said to hold the field at present, though, as we have said, nothing is as yet definitely proved. Briefly stated, Richthofen's theory is this: "The Schlern," he says (taking that mountain as a typical example), "is a coral reef, and the entire

formation of *Schlern Dolomite* has in like manner originated through animal activity." This seems, at first sight, a sufficiently startling theory, and, as Mr Churchill remarks, offers ample "room and verge enough" to the flights of imagination. When one is first confronted with these extraordinary masses of rock it would seem much more in accordance with the fitness of things to suppose that they were due to some mighty volcanic upheaval than that they are the result of long ages of patient activity; at the same time, however, it must be admitted that the Coral Reef theory of origin is a fascinating one, and is, moreover, supported by certain incontestable facts.

Churchill briefly summarises these as follows:—"The following are some of the facts to which Richthofen calls attention in support of his hypothesis, taking the Schlern as the subject for illustration. First, its form as a mass, falling away steeply on all sides; its isolation from similar masses in the neighbourhood; the improbability of such a form being the result of denudation, as involving—sup-

posing, for instance, the Schlern and Langkofel had ever been a continuous deposit—too great a destruction in one direction, and too complete a protection from denudation in another. Then the undisturbed beds upon which the Schlern rests, and the equally undisturbed Raibl beds upon its summit, imply that the intermediate Dolomite has suffered, since its deposit, no considerable mechanical disturbance. The unequal thickness of the different masses, too, points strongly in the same direction. The Dolomite of the Schlern and of the Sella plateau could never have been higher than at present, covered as it is in both with Raibl beds; while the upper portions of the Dolomite of the *more lofty* Rosengarten, Langkofel and Marmolata have been left exposed to denuding action."

Further, "the fossil contents of the Raibl beds offer a strong similarity to those now in process of formation, on the lee side of the present coral reefs"—in the Pacific and Indian Oceans, and on the Australian coastline. There are to be found masses of coral

SUNSET EFFECT AFTER STORM—DREI ZINNEN DISTRICT

sand and fragments of corals, shells and sea-urchins that have been deposited in regular beds in the still water on the lee side of the reefs; these beds are cemented together into a hard crystalline rock, often white, but also sometimes coloured red with oxide of iron "Now the Raibl beds upon the Schlern are made up of similar fragments, accompanied by the hard shells of Gastropoda, and certain strongly-formed bivalves. And while, on the one hand, there is a complete absence of ammonites, and other shell-fish of a *deep* sea in the Raibl beds upon the *summit* of the Schlern, it is just these forms, and no others, that have been found in the patch of Raibl beds upon the Seiser Alp at its foot."

Richthofen instituted a comparison between the Dolomites of South Tyrol and existing coral reefs, and came to the conclusion that it is difficult to explain the origin of the former without the supposition of animal activity.

"The original *local* character of the 'Schlern Dolomite' formation is implied in another circumstance connected with the mode

deposit of the Raibl beds. Evidence derived from other deposits shows that during this period the district was undergoing a gradual slow depression, and that no violent catastrophe occurred. Now the Raibl beds—containing fauna of a *shallow* sea—are found, not only on the summit of the Schlern, and of the lower line of precipices of the Sella and Guerdenazza plateaus, but also in two patches *upon the Tuff* at the foot of these Massives, thousands of feet below. These great differences of elevation in an undisturbed bed at very short distances would, Richthofen argues, be difficult to explain without the supposition of reef-building corals."

The main facts in support of Richthofen's theory, then, are these:—the isolation of these mountains; the presence of marine deposits similar to those found in existing Coral Reefs; the absence of deep-sea deposits; the absence of any trace of volcanic origin; the peculiarity of their forms; their lines of curvature; and the

PREDAZZO

Predazzo, in the Fassathal, has been described as classic ground for the mineralogist. It is stated, on good authority, that such a variety of igneous rocks within a comparatively narrow compass can hardly be found elsewhere in Europe, and this quiet little village was apparently once, long ages ago, the very focus of volcanic eruption. Here there must once have been a great eruptive centre, which broke out again and again—each time throwing up a different kind of rock: syenite, tourmaline granite, uralite porphyry, melaphyr, porphyrite and the unique syenite porphyry, unknown elsewhere.

"The oldest igneous rock," says Churchill in his chapter on "The Physical Description of the Dolomites" already referred to, "is a peculiar kind of syenite, which has penetrated through the deep-seated and older red porphyry, and overspread the inner borders of the surrounding lower trias beds. At a later date followed tourmaline granite, breaking through the syenite on the east side of the crater, immediately behind Predazzo, and overlying it

In this rock tourmaline takes the place of mica. Higher up on the eastern slopes lies a rock of still later date, nearly allied to melaphyr, which, as containing crystals of uralite, Richthofen distinguishes by the name of Uralite porphyry. Of subsequent date to these is a very dark melaphyr, which shows itself as a dyke breaking through the granite, and then, ascending to the surface of the older eruptive rocks, spreads far and wide, over their upper limits of outflow, into all the three crescentic spaces formed by the curves of the beds of the lower trias. Fully one half of Monte Mulatto, to the north-east of Predazzo, consists of it. Finally, penetrating the syenite, and then the melaphyr, are veins of two other kinds of rock, called porphyrite and syenite porphyry, the latter—not known to occur in any other locality—remarkable as possessing very large crystals of orthoclase."

According to the generally-accepted theory, after the main phase of eruptive activity in

depression ensued which lasted for a long time; it was during this "period of depression" that the so-called "Schlern Dolomites" and "Raibl beds" were formed.

As is remarked by Churchill, one of the most striking characteristics of this formation is its distribution in the form, either of great isolated *massifs* (such as the Schlern itself, the Langkofel, the Sella and the Marmolata) or equally isolated long wall-like lines or curves—as examples of which he quotes the Rosengarten and the Latemar. "Another feature is the excessively narrow area within which it is found, and its sudden appearance and disappearance within this area. It is not seen west of the Schlern or Latemar, and it disappears beyond the Tre Sassi Pass before reaching Cortina."

Furthermore, the presence or absence of later beds lying upon the true dolomite bears a close relationship to the variety of the aspect of some of the peaks; it might otherwise seem a little difficult to put into the same category such apparently widely different masses as the

Langkofel and the Sella groups, in external appearance at all events. The fact, however, that the latter is merely overlaid with later beds is sufficient to reconcile the apparent discrepancy and allow us to put the two into the same class.

Churchill sums up the matter as follows, and we may very well conclude this chapter with his words:—"The Dolomites of the future will probably have to be sought for in the varied coral regions of the Pacific and Indian Oceans, and on the north-east coast of Australia. Let us indulge a hope that the elevating action may be rapid enough to save their reefs from the fierce ordeal they must pass through on their way upwards to light and air. Leaving the breakers to dash themselves vainly at their feet, they will then display to a distant posterity their manifold bosses, walls, plateaus and pinnacles of jagged rock; probably as far exceeding in weird grandeur the Dolomites of South Tyrol as these already excel

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